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### REPORT

*On the Changes in the Composition and Properties of the Milk in the Human Female, produced by Menstruation and Pregnancy; also, on the Food most Proper for Infants when deprived of the Milk of the Mother.*

Presented to the Illinois State Medical Society, May, 1860.

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At the annual meeting of the American Medical Association, held in May, 1856, I had the honor to present a brief report on the chemical and microscopic changes that take place in the milk of the human female during menstruation and pregnancy.

The Association in accepting that report requested a continuance of the investigation, and by a subsequent resolution, imposed upon me the additional duty of reporting on the food most proper for infants when deprived of the milk of the mother. In continuance of the investigation commenced in the former report, observations and notes have been made concerning twelve additional cases of pregnancy and eight of menstruation. In six of these cases, four of pregnancy and two of menstruation, the milk was obtained for examination and analysis in the same manner as detailed in the former report.

The examinations with the Microscope revealed nothing that was not fully described and represented in that report.

In all the cases of pregnancy there was a noticeable change in the quantity of milk globules; the full sized globules being fewer, while the mere granules were increased in number. In the milk obtained while the mother was menstruating the

change was much less observable. The observations and analyses contained in the former report led us to the following conclusions, viz. :

1st. The occurrence of pregnancy, during lactation, produces a very marked diminution of all the solid or nutritive constituents of the milk.

2nd. In examining the separate proximate elements, it will be observed that a much greater relative diminution takes place in the caseine, the butter or oil, and the salts, than in the sugar and extractive matter.

Having now completed a direct comparison between the microscopic appearances and chemical composition of the milk of six different mothers while pregnant, with specimens of milk from the same mothers when in the third or fourth month of lactation without pregnancy, but preserving in each case all the circumstances connected with diet and exercise as nearly uniform as possible, I think the conclusions just stated clearly demonstrated. It would have been easy to have multiplied the number of analyses, had it been proper to compare the composition of the milk of one female in a pregnant state with that of another not pregnant. But the well known fact that milk from different individuals, differs much in the relative proportion of its constituents, would render any conclusions drawn from such a comparison more or less unsatisfactory. Hence I have confined myself in this, as in the former report, to such cases only as would permit a comparison of the two conditions in the same individual.

*Changes in the Qualities of the Milk.*—The properties of milk doubtless depend partly on the relative proportion of its constituents, partly on the more or less perfect elaboration of these, and in part also upon the admixture of accidental or foreign ingredients

Careful examinations were made relative to the health of both mothers and children, which have been noted since the previous report. In eight, the mothers continued to enjoy as good health as is usual during the first three months of pregnancy, when not complicated with lactation ; but their children all began to show signs of insufficient nutrition, coupled with

more or less disturbance of the stomach and bowels, before the completion of the second month of pregnancy. In two the children continued well nourished and healthy, but the mothers both became rapidly anemic, and the organic nervous system extremely excitable, as indicated by palpitations of the heart, muscular weakness, and inability to endure even moderate exercise.

In the remaining two, both mothers and children continued to enjoy a fair degree of health until the fourth month of pregnancy, but the children drank freely of cow's milk and sometimes took other nourishment, and the quantity of milk furnished by the mothers was small.

Of the eight cases of menstruation during lactation, in three both mothers and children continued well; in three others the mothers continued well, but their children were unusually fretful, and subject to frequent turns of slight diarrhœa; in the remaining two the mothers became affected with erythematic inflammation of the mouth, profuse leucorrhœal discharges after each menstrual period, and much general debility, while the children showed no other signs of ill health than unusual peevishness.

From all the foregoing facts and analyses, I am led to infer that the occurrence of pregnancy during the ordinary period of lactation either speedily reduces the quantity of milk secreted, or lessens the proportion of solid or nutritive constituents, to such a degree as to render it insufficient for the proper nourishment of a child over six months old. In a small proportion of cases, however, the milk secreted continues abundant and of good quality, but the health of the mother rapidly declines; while in a still smaller proportion of cases, the mother and child both continue well nourished and healthy. Taking these statements as correct, they suggest two questions of much importance.

First: Whenever pregnancy occurs during lactation and the mother or child, or both, are found to exhibit symptoms of anemia, should the child be immediately removed from the breast; or should an effort be made to devise such diet and medicine as would enable the mother to assimilate sufficient for herself, and both the intra and extra uterine off-spring?

Second: If an attempt is made to sustain the mother and permit lactation to continue, what dietetic and therapeutical measures would be most efficient for that purpose?

The defects in the milk, as shown by analysis, as well as the condition of the mother, readily suggest a diet containing abundance of caseine, gluten, or albumen, and such tonics as the compound syrup of phosphates, or still better, the hypophosphites of soda, potassa, lime, and iron; but your committee cannot report a sufficient number of clinical cases to determine the actual value of such a course. On the contrary, nothing short of an early removal of the child from the breast has been found safe in the great majority of cases thus far observed. And this leads directly to the consideration of the second question propounded to me by the Association, namely, "what food is most suitable for infants when from any cause it becomes necessary to deprive them of the mother's milk at too early a period?" Very few questions could be stated having a more direct bearing upon the preservation of life and health, than this. The ratio of mortality during the first five years of life is not less than one per cent. of the population in cities. And if this inquiry was restricted to such infants as are deprived of the mother's milk during the first six months after birth, it is quite certain that the ratio would be doubled. Dr. Reese, in his report on infant mortality made to the American Medical Association, very justly places impure milk and improper food, used during the first year of infancy, among the prominent causes of such mortality. Hence the subject is one of sufficient importance to be worthy of the most careful investigation. There are two methods by which inquiries may be conducted, on this subject, viz.: the rational and the empirical. The first embraces a careful consideration of the following questions:—

1st. What proximate and elementary constituents must food contain to render it capable of affording perfect nutrition to the infant?

2nd. What articles of food contain such constituents? and what state, in relation to fluidity, temperature, &c., is best adapted to the condition of the digestive apparatus in infancy?

The second method of inquiry consists in the direct administration of different articles of food to a sufficient number of children, and for a sufficient length of time to determine their absolute and relative value.

To do this satisfactorily would almost necessarily require the control of a Foundling Hospital or Orphan Asylum in which a considerable number of infants were admitted. Without any such facilities for pursuing the empirical method of inquiry, we must be content with the simple announcement, derived from the general experience of the profession, that infants are capable of being fully nourished and all their tissues brought to a healthy degree of developement on a considerable variety of alimentary substances. The most important of these are, the milk of animals; panada or pap prepared from wheaten bread or biscuit; oatmeal or groats; and the several farinaceous articles such as corn starch, arrow-root, rice, &c.

If we subject these several articles to the rational method of inquiry, as already defined, we shall find each of them containing all the proximate and inorganic constituents necessary for nourishing the various structures of the human body, but in very variable proportions. Thus if we assume that all substances, capable of sustaining perfect nutrition in infants, must contain more or less nitrogenous, carbonaceous, and saline or inorganic matter, and subject those already named to an analytical comparison, we shall find in the cow's milk the three classes of alimentary principles in nearly the same aggregate proportion as in healthy milk from the human female; in the preparations derived from wheat and oats the nitrogenous elements represented by gluten or vegetable albumen though less than in milk are abundantly sufficient; while in those derived from rice, arrow-root, &c., the nitrogenous constituents are very deficient in quantity, and the carbonaceous, as represented by starch and sugar, relatively in excess. This will be more forcibly illustrated by a glance at the proximate analysis of these several substances. Thus, if we add to wheat flour, oatmeal, and rice flour respectively, a sufficient quantity of water

to render them capable of being compared with cow's milk, we shall find them to contain, in 1000 parts,

	Nitrogen- ous El.	Carbon- aceous.	Saline.	Water.
Cow's milk,.....	44,80	79,00	6,00	870,00
Wheat flour, (diluted with water),	15,74	110,65	3,46	870,00
Oatmeal,           do.    do.	13,25	101,79	5,88	870,00
Rice flour,       do.    do.	5,08	193,62	0,70	870,00

The obvious deductions from this table are in strict conformity with the teachings of experience, as stated by the best practical writers on the dietetics of children. They have all told us that pure and fresh milk from the cow is the best substitute for that of the mother. But I am fully satisfied, both from analytical investigations and clinical observation, that most of these writers have committed one important error; which consists in recommending the milk of the cow to be used largely diluted with water, and sweetened by the addition of sugar. Thus Dr. Dewees recommends it, for infants under five months, to be diluted with one part of water to two parts of milk and the addition of a little sugar. To children over five months he allows the use of rice and gum water in addition to the diluted milk. Dr. Condie in his work on Diseases of Children, says: "The quantity of (cow's) milk required for use should be mixed with nearly an *equal quantity* of warm water and *well* sweetened with sugar." Drs. Churchill, Pareira, and others coincide in nearly the same recommendation.

The foundation for this recommendation is the supposed fact that cow's milk contains more butter and caseine and much less sugar than woman's milk. This impression was made on the older writers, by observing on woman's milk when allowed to stand, the appearance of a smaller quantity of cream and curd than on cow's milk. The same has been perpetuated by the analysis of woman's milk published by M. M. Chevallier and Henri in 1839, and quoted as the standard of comparison by Pareira, Churchill, and others. The result of their analysis is stated as follows:

1000 parts of woman's milk gave of water 879,8; solid constituents 120,2. The latter consists of

Butter,.....	35,5
Sugar of milk,.....	65,0
Caseine,.....	15,2
Salts,.....	4,5

Satisfied from my own analyses that this statement does not correctly represent the average relative proportion of caseine and sugar in healthy human milk, I extended the inquiry and found that it differed equally from the results of analyses by Simon, Clemm, and still more recently by M. M. Vernois and Becqueral. Simon made fourteen analyses of woman's milk at different periods of gestation, and with the following average result: In 1000 parts, Water, 883,6; Solid matter, 116,4.

The solid matter contained, of

Butter,.....	25,3
Sugar and Ext.,.....	48,2
Caseine,.....	34,3
Salts,.....	2,3

Clemm made three analyses during the first two weeks of lactation, and gives us the relative proportion in 1000 parts of sugar and extractive matter, 41,1; of caseine, 35,3.

M. M. Vernois and Becqueral, state the relative proportion of the same ingredients to be, of sugar 43,6, and caseine 39,2.

It will be seen, therefore, that the results obtained by all these differ but little from those obtained by myself as stated in the first part of this report. If we compare the results obtained by me with those just given, we may deduce the following table, which will probably afford as reliable a representation of the average composition of healthy human milk as can be obtained:

Water,.....	885,50
Solid matter,.....	114,50
Of which there is	
Butter,.....	29,70
Sugar and Extractive,....	43,35
Caseine,.....	38,27
Salts,.....	7,20

This compared with the table given by Chevallier and Henri, as quoted so generally by writers on dietetics, repre-

sents the relative proportion of sugar as one-third less and that of caseine as more than double; and if compared with cow's milk in reference to the three important classes of alimentary principles would exhibit the following result, viz:

	Nitrogenous Elements.	Carbon- aceous.	Saline.	Water.
Woman's milk,.....	38,27	73,05	2,30	885,50
Cow's milk,.....	44,80	79,00	6,00	870,09

It will thus be seen that the composition of cow's milk, whether viewed in relation to the absolute amount of solid constituents, or to the relative proportion of its several proximate elements, affords no indication for more than a slight dilution with water accompanied by a correspondingly small addition of sugar. During the progress of my investigations concerning the properties of milk, two facts were observed which led to farther inquiries. The first was, that fresh human milk gave to litmus a much more decided alkaline re-action than cow's milk; and when allowed to remain in an open vessel, remained entirely fluid and without any indications of sourness for a much longer time. The second was, that in almost all instances in which infants were made to depend on cow's milk for nourishment and they did not thrive well, the failure seemed to be accompanied by a speedy and excessive generation of acid in the digestive apparatus, indicated by either vomiting of some milk soon after it was taken, or too frequent stools of a curdled appearance and sour smell. These facts led to the inquiry whether a large part of the difficulty arising from the use of cow's milk for infants, did not depend directly on the more ready coagulability of its caseine, as compared with the milk of the mother.

To test the relative coagulability and fermentive tendency of the two kinds of milk, I placed a specimen of woman's milk and of cow's milk in vessels of equal size and shape side by side, and allowed them to remain at rest three days. The specimen of cow's milk emitted an acid smell and re-action, together with a visible coagulation of the caseine in 36 hours, while the specimen of woman's milk remained apparently perfectly sweet and free from coagulation at the end of 48 hours.

To determine the effect produced on cow's milk by aqueous dilution, I placed side by side in equal quantities and equal vessels, three specimens; one of pure cow's milk, another of milk of the same cow diluted with half its quantity of water, and a third diluted with the same quantity of water and the addition of a little white sugar. Of these specimens, that which was simply diluted with water showed signs of fermentation and coagulation first, next that diluted with water with the addition of sugar, and last the pure milk. Having satisfied myself by these and other experiments, that the caseine of the milk of the cow is held in solution by a feebler affinity than that of the human female; and that simple dilution with water, or water and sugar, only renders this affinity still more feeble, and thereby favors both fermentation and coagulation; my next inquiry was, whether any substances could be added to the milk of the cow which would positively strengthen the affinity by which the caseine is held in solution and thereby materially retard both coagulation and fermentation. It being supposed that caseine in fresh milk is kept soluble by union with a certain proportion of soda, and that while fresh it always gives an alkaline reaction though feebler than that given by woman's milk, we should be disposed to look first to the class of alkaline substances as most likely to produce the desired effect. Accordingly four specimens of fresh cow's milk were placed in vessels of equal size and shape. To one was added chloride of sodium (common salt) in the proportion of 5 grs. to the oz. of milk; to another an equal proportion of bi-carbonate soda; to a third, aqua calcis (lime water) in the proportion of half-a-fluid drachm to the oz. of milk; while the fourth specimen remained without the addition of anything. After standing 36 hours the 4th specimen emitted a distinct sour smell and showed a visible coagulation of the caseine. The third specimen did not exhibit the same changes until the end of 53 hours; while the 1st and 2nd specimens remained without any perceptible change full 72 hours. These results were striking and susceptible of a highly important practical application. They demonstrated the practicability of keeping the caseine of cow's milk soluble a much longer time by the addition of alka-

lies, and thereby rendering it more nearly identical in its properties with the milk of the human female. From all the foregoing observations and experiments, we are led to the following inferences, viz :

1st. That cow's milk more nearly approximates, in composition and properties, the milk of the human female than any other substance ; and is consequently better adapted to the feeding of infants than any other substances in use.

2nd. That in preparing cow's milk for the feeding of infants less than six months old, it should be diluted with not more than *one-fourth* part of water, and receive the addition of from three to five grains of common salt or bi-carbonate of soda to the ounce of milk, and sufficient sugar to give it a slightly sweetish taste. For infants over six months old, the proportion of water should not be more than one-sixth.

During the last three or four years I have regulated the food of infants coming under my care, in accordance with the foregoing propositions, and with the most satisfactory results. The solidified milk, manufactured in Dutchess County, New York, contains just about the required amount of additional soda and sugar, and when dissolved in the right proportion of water, makes the best food that I have yet used for infants deprived of the mother's milk. I have now, within my circle of patients, three infants growing finely on the solidified milk exclusively, and have been since they were from three to six weeks old. It not only contains the needed addition of soda and sugar, but being perfectly dry, and capable of being kept any length of time, it can always be dissolved fresh for use whether in winter or summer ; and consequently affords greater uniformity than can be procured by any other article in use. I have met with two or three children, who would not thrive well on any preparation of milk that I could devise.

With these the oatmeal or groats, answered a better purpose than any other kind of food.

Dr. W. H. Cumming, who has recently published an interesting work on the dietetics of children, gives the following directions for preparing cow's milk for infants :

"Take, then, ordinary cow's milk and let it stand for four or five hours. For a child three months old,  $2\frac{1}{4}$  quarts will be needed. Take the upper third, ( $3\frac{1}{2}$  pints,) and add to it  $2\frac{1}{2}$  pints of water; sweeten it with the best sugar, of which  $2\frac{3}{8}$  ounces will be required. It should be made somewhat sweeter to the taste than ordinary cow's milk.

A child three months old will take from 48 to 60 fluid ounces, daily, in six or seven doses of a half pint each.

It should be given from a bottle—*suction being the only proper mode of feeding for a young child.*

Its temperature should be from  $100^{\circ}$  to  $104^{\circ}$ . It should be warmed again if it becomes cool while the child is taking it.

The child should be early trained to pass 6 or 8 hours at night without feeding.

The kind of bottle, which for cheapness and convenience is most advantageous, is a plain 8 ounce vial, of an elliptical form. The artificial nipple is made best by rolling a quill in soft muslin and forcing this into the neck of the vial, leaving about three-fourths of an inch projecting from the neck. The ease with which the muslin may be unrolled and thoroughly washed, gives this arrangement a superiority over every other, especially in warm weather. The quill also may be readily cleaned.

The child should be fed at intervals of three or three and a half hours. Regularity in this respect is very advantageous.

During the first month, the child needs food of different composition. There should be more butter in proportion to the caseine. In order to obtain this increased proportion of butter, let the upper *eighth* of the milk be taken instead of the upper *third*. This milk contains from 70 to 80 thousandths of butter. It should be diluted with 2.6 parts of water."

For a child from 3 to 10 days old.	Mix 1000	Water 2643	Sugar 243
" " 10 to 30 "	"	" 2500	" 225
" " 1 month old.	"	" 2250	" 204
" " 2 "	"	" 1850	" 172
" " 3 "	"	" 1500	" 144
" " 4 "	"	" 1250	" 124
" " 5 "	"	" 1000	" 104
" " 6 "	"	" 875	" 94
" " 7 "	"	" 750	" 84
" " 9 "	"	" 675	" 78
" " 11 "	"	" 625	" 73
" " 14 "	"	" 550	" 67
" " 18 "	"	" 500	" 63

By thus gradually diminishing the proportion of water, we furnish the child a milk containing an ever-increasing proportion of nutritive matter.

This method of Dr. Cummings, is founded on the supposition that it is desirable to increase the relative proportion of butter in the milk of the cow, and at the same time greatly diminish that of the caseine. Without stopping to inquire whether this supposition is well founded or not, it is sufficient to know that the method is impracticable in those localities and among those classes where artificial food for infants, is most needed, namely, in all our large cities. Nine-tenths of the inhabitants of all our cities, obtain their milk from the regular *milk-men*, whose supply consists of the milk of many cows mixed together; first shook up over many miles of railroad; then diluted more or less with water and ice, and shook up some hours during the delivery along the paved streets of a populous town. To talk of letting such milk stand a certain length of time in order to obtain the "*upper-third*," for the purpose of feeding an infant, is preposterous; at least, during the summer months. In spite of *scalding* and refrigerators both, every family who has tried it, knows that it is difficult to keep such milk sweet from morning until evening, and that it is often actually sour in less than an hour after delivery.

From close observation through a series of years I am satisfied that the excessive dilution of milk, and the use of rice-water, barley-water, bread-water, and such other preparations as require the child to take a large quantity of water to get a small amount of really nutritious matter, greatly favors the prevalence of cholera-infantum and diarrhœa, during all the warm season of the year. Indeed, the excessive use of liquids, is a prominent cause of intestinal fluxes, in the old as well as the young.

The heat of the summer relaxes all the tissues more or less, and renders the cutaneous and mucous surfaces more sensitive than normal. If at the same time water or diluted drinks are freely taken, the skin and kidneys secrete more largely; not only discharging the excess of water from the blood, but also a considerable quantity of saline matter with it. The supply of water being kept up, it is easy to see, that the saline matter of the blood would soon become deficient, and consequently the capacity of that fluid for the absorption of oxygen from the

air-cells of the lungs, would be impaired. With a deficiency of both salts and oxygen in the blood, with an excess of water, and a relaxed and sensitive state of the mucous surfaces, we have a state of things highly favorable to the occurrence, of cholera-morbus, diarrhœa, and dysentery. So fully am I satisfied of the correctness of these views, that I do not hesitate to call the attention of the profession to them, especially in regard to their bearing on the preparation of food for infants.

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### HYDROCYANIC ACID SHOULD BE STRICKEN FROM THE LIST OF OFFICIAL PREPARATIONS.

(From a Paper on Hydrocyanic Acid, by Dr. F. MARHA.)

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Hydrocyanic (prussic) acid is, in the hands of an experienced practitioner, undoubtedly of great therapeutic value. Yet there are serious objections as to the forms in which it is generally prescribed by physicians. Hydrocyanic acid is employed in various forms. The U. S. Pharmacopœa names as official preparations not only a diluted hydrocyanic acid, but gives also directions for the preparation of other medicaments which contain this substance. The aqua amygdolarum amararum, the oil of bitter almonds, are pharmaceutical preparations, which are constantly varying in strength in regard to prussic acid. It is well known, that hydrocyanic acid is liable to undergo decomposition, not only if exposed to the direct sunrays, but also if exposed to common daylight. It has been observed that it became brown and turbid even if the bottle was covered with black paint or paper. This shows clearly that great molecular changes take place readily under certain circumstances, which are out of control. It is obvious that all the other hydrocyanic acid containing preparations, are subject to the same decompositions.

There is still another serious objection to the use of those medicaments in medical practice. Hydrocyanic acid is a chemical compound, which is highly volatile. The anhydrous

acid boils already at 80° F. As our usual summer temperature is sometimes 90 or even 100 degrees, it may be easily conceived, that the absorbing power of water of that temperature is considerable less than that of water of 30 or 40 degrees. If, therefore, a bottle containing this preparation be opened during the hot days of July or August, and a portion of the contents taken out, it is but natural that a certain quantity of gaseous hydrocyanic acid escapes from its aqueous solution and fills the empty space of the bottle. This of course escapes into the air as soon as the vial is opened once more. It becomes thus weaker and weaker, and the practitioner waits in vain for that effect, which a former dose always used to produce.

It is very frequently the case, that an acid, even if directly from the chemical manufacturer, has not the required strength. According to the U. S. Ph., hydrocyanic acid should contain 2 per cent. of anhydrous acid. In most cases, it is, however, considerably weaker, and becomes the more so the longer it is kept on hand.

Though these facts are well known to every professional chemist, I thought it would be of interest to the practitioner if I could prove their truth by direct experiments. I subjected, therefore, different samples of hydrocyanic acid, of aqua amygd. am. and of ol. amygd. eath. to a quantitative analysis. I made use, for these determinations, of Liebig's method, with a silver solution of known strength, caustic potassa and chloride of sodium, as described in "Mohr's Titir-book."

Acid A. perfectly colorless, top well secured, analyzed 2 months after shipment from the factory,.....	1.44 per cent. of anhydrous acid.
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Same acid analyzed 14 days afterwards,.....	1.32	"	"
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Acid B. received from the factory 3 months previous, well stoppered,.....	0.95	"	"
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Acid of the same manufac. kept in store for about 5 months, (bottle had been opened during this period),.	1.02	"	"
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Essential oil of bitter almonds,..... 6.30 per. cent. of anhydrous acid.

Aqua amygd. amar., fresh prepared according to the U.

S. D.,.....0.0036      “      “

Aqua amygd. am., prepared 6 months ago, but kept in

a well closed bottle,.....0.0000      “      “

It is obvious, that a remedy, the exact strength of which cannot be controlled, is not fit to be used in medical practice. The question is now, in what form shall the physician prescribe hydrocyanic acid? Cyanid of potassium, as it occurs in commerce, is not pure; it contains always cyanate of potassa, besides occasional impurities. The pure cyanid of potassium is very difficult to prepare, very deliquescent, and its solution very prone to decomposition. It is, therefore, a substance not fit to be dispensed by the pharmacist.

To avoid these difficulties, Prof. Wohler suggested already some time ago, the use of amygdalin. This principle, which is contained in bitter almonds, is readily decomposed by the combined action of emulsin and water into the essential oil of bitter almonds, prussic acid and sugar. The oil of bitter almonds (when deprived of its prussic acid,) is without effect upon the animal system, at least in all doses in which it would be prescribed, and it could be therefore of no objection to have it as an accompanying admixture in a medicament.

Seventeen grains of amygdalin produce, if acted on by emulsin and water, one grain of anhydrous prussic acid.

A teaspoonful of a mixture made according to the following formula, diluted, therefore, a dose of 2 drops of the official diluted hydrocyanic acid, viz:

R. Emuls. amygdal. dulc., (ex. 3ii.) ℥ iv.  
Amygdalin pur. pulver., gr. xx. Misce.

## OSTEOID CANCER OF THE FEMUR.

The tumor in question, was forwarded to Prof. N. S. Davis, of Lind University, by Drs. L. Martin and E. C. Dickenson, of Shelbyville, Ill.

The history of the patient is given in the following letter from Dr. Dickenson :

"Patient, William, aged 10 years, son of Jesse Baker, a farmer residing in the South Eastern part of Shelby Co., near Neoga, Ill. About the middle of June the father called upon us for advice in the case, as stated by him. We requested an examination, for which an opportunity was afforded by his presentment at our office on Saturday, June 30th. On that day we diagnosed a tumor occupying the right knee, and having a circumference of 2 feet  $2\frac{1}{2}$  inches. The patient, of an ambitious sanguine temperament, and a champion among his school fellows, in their sports, had acquired the reputation of the best hopper upon one foot in the settlement, and it was in February, 1859, without having experienced previous known injury, that the inner condyle of the right femur began to be tender to the touch. Soon, also, it appeared swollen, and continued gradually to increase in size, though without offering serious impediment to locomotion.

The patient continued his wonted state of health until March or April last, when, as the tumor took on an increased activity of growth, he began to lose flesh, and during the three weeks previous to our seeing him, (June 30th,) had rapidly emaciated.

The pain had become constant and of increased intensity. Comparing then the alternatives of probable dissolution from exhaustion, within three or four weeks, with the improbable immediate death, as the result of a carefully conducted amputation, we determined to operate on the next day but one, (July 20th.) Accordingly we took the cars for Neoga, invited the assistance of two physicians of that place, and proceeded at once five miles, and to the operation. I prepared Prof. Andrews' anaesthetic compound, *i. e.* Ether 2 pts., Chlor. 1 pt., and occupied ten minutes in preparing the patient for the knife in the hands of Dr. Martin. Completed the operation

with pulse at 95. One hour after the operation, pulse at 120. Employed two  $\frac{1}{4}$  gr. doses Morph. which controlled all pain and procured sleep within two hours. 'Six hours afterward, slept quietly—pulse 130.'

I remained with him for two days, during which time he constantly improved in strength and spirits. Visited him again in four days, and dressed the stump. In five days more Dr. M. visited and removed sutures. Left ligatures for removal by the patient after 14 or 15 days. Saw the patient no more, but heard from his father that in 14 days from operation he was moving about on crutches, and in 21 days was visiting the neighbors on horseback.

In five weeks after the operation he commenced attending school  $1\frac{1}{4}$  miles, and has attended *constantly* since."

When the specimen came into my hands for examination, it was too far gone in decomposition to permit any cancer elements to be detected by the microscope, and the examination therefore was made by simple dissection. The specimen consisted of a thigh and leg. At the place of the knee joint there was a large tumor measuring eight inches in one diameter and fourteen in the other. The muscles above and below were very much atrophied. The integument over nearly the whole tumor was natural in appearance, and not strongly adherent. On removing the skin and superficial fascia, I came at once to a mass which seemed like an encephaloid cancer on the surface, but which, at the depth of a quarter of an inch rested on a loose bony tissue mixed with cancerous substances. As the dissection was pushed deeper, the bony tissue seemed firmer and more compact, and less mixed with soft tissue. The mass sprang exclusively from the femur. The patella, and the upper part of the tibia, though over-lapped and pressed upon by the tumor, yet retained their coating of cartilage, and a nearly natural appearance. The articular surface of the femur also retained a pretty natural aspect, but the whole surface of the bone just above was over-lapped in a semi-fibrous mass, fibres of osseous tissue seeming to spring from the whole circumference and radiate in all directions, enveloping the shaft of the bone some two inches above the point of attachment,

giving the appearance of the shaft of the bone running into a hole or socket in the tumor.

The case so far as could be determined by this examination, was one of osteoid cancer.

E. ANDREWS.

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### STRAMONIUM IN NEURALGIA.

By A. YOUNG, M. D., of Prescott, Wis.

*Messrs. Editors*,—Permit me to call the attention of your readers, to the value of Stramonium in Neuralgia.

I am aware that this narcotic is sometimes administered in this intractable disease, but so far as my own observation extends, it is by no means a common remedy. Here in the West where the Intermittent form of Neuralgia is so prevalent, Quinine and Carb. Iron are principally relied upon in its treatment, yet these not unfrequently fail to arrest it. I have, however, to meet with the first instance that has failed to yield to Stramonium. In some of the cases in which I have used it, Quinine, Carb. Iron, Opium, Aconite, Chloroform, had been tried without success.

Although I have used it principally in Intermittent Neuralgia, I have also found it superior to any other remedy in that department upon Spinal irritation, or connected with general Hyperæsthesia in females—Pleurodynia, &c.

The mode in which I have given it in the intermittent form, is gr. j. of Tilden's Ext. Stramon. Fol. every two or three hours during the intermission, until the system is decidedly affected, indicated by dilated pupil, disordered vision, vertigo, and often hallucinations or mild delirium. When given to this extent, it will generally be found unnecessary to repeat it. Anything less than this will be of comparatively little value. In the other forms of Neuralgia, it is not usually necessary to push the remedy so far.

Beyond the temporary effects following its administration, I have never seen the slightest inconvenience result from its use.

Subsequent constitutional treatment is of course often demanded for the relief of debility, &c.

PROCEEDINGS OF THE MEDICAL SOCIETY OF THE  
CITY OF GALESBURG, HELD SEPT. 8th, 1860.

At a regular meeting of the Galesburg City Medical Society, held Sept. 8th, 1860, the following report of a committee appointed at the previous session, was received and adopted unanimously, and copies ordered to be furnished to the *Chicago Medical Journal*, and *Chicago Medical Examiner*, for publication :

## REPORT.

Your Committee to whom were referred the several subjects relating to the necessities for some legislation favoring the study of *Practical Anatomy* by Students and members of the Medical Profession; for a Registration Law of Births, Marriages and Deaths, and for the extension to medical men of the privilege of withholding, when called as witnesses, any information derived in the exercise of their professional duties, and which was necessary to the proper discharge thereof; submit the following preamble and resolutions as expressive of the sense of this Society :

*Whereas*, in the study of the science of Medicine and Surgery, and to the proper understanding and practice of the same, it is indispensably necessary that the student have an opportunity to become familiar with the science of *Human Anatomy* by practical dissections with his own hand; and *whereas*, such course of study is held as pre-requisite to graduation in all well regulated medical schools, and as also held by the public to be of paramount importance to a thorough medical education; and *whereas*, both the law and the public hold medical men pecuniarily and morally responsible for knowledge of this science in the exercise of their vocation; and *whereas*, the study of *Human Anatomy* cannot be pursued in this state except in direct violation of the laws thereof, and the liability to severe fines and penalties; and *whereas*, we believe this inconsistency and injustice of the law in the requirement of the exercise of this knowledge under penalty, which at the same time, under like penalty, it prohibits being obtained—should be removed; and *whereas*, we believe that a proper registration of births, marriages and deaths, is necessary in a legal, medical and sanitary point of view, and will conduce greatly to the general welfare of the inhabitants and the advancement of the industrial interests of the State;—

And whereas, by the common law of the land and by the rulings of the courts in this State, physicians and surgeons may be made to disclose any information acquired confidentially in their attendance professionally upon any person, no matter how repugnant to their sense of propriety, honor and morality, such may be;—therefore,

*Resolved*, That we deem it wise and necessary on the part of the Legislature of this State to make some provision which will admit students of medicine and members of the profession to supply themselves with "*material*" from subjects interred at the public expense, when not claimed by relatives or friends, under such restrictions for the protection of the public interest and feelings as the delicate nature of the case may suggest.

*Resolved*, That a law for the registration of births, marriages and deaths, will contribute much to a better understanding of our climate, vital statistics, sanitary and industrial condition; to say nothing of the legal, historical and medical knowledge otherwise accruing therefrom.

*Resolved*, That we hold the relation of physician and patient to be of the most private, personal and confidential character; and as such should ever be held inviolate, and as exempt from inquisitorial proceedings as those of the attorney and his client; and in accordance with these sentiments we claim "that no person duly authorised to practise medicine and surgery should be compelled to disclose any information which he may have acquired in attendance on any patient in a professional character, and which information was *necessary* to enable him to prescribe intelligently as a physician, or do any act as a surgeon."

*Resolved*, That the statutes of the States of New York, Michigan, Iowa, Wisconsin and Missouri, extending to the medical profession these legal privileges, are founded in justice and good morals, and have a proper regard for the peace of families and the community; and therefore, receive our entire approval, in meeting the wants of the profession in this State.

*Resolved*, That at the proper time this Society will propose a memorial to the Legislature, calling attention to these, as we believe, rightfully statutory provisions, and ask for such enactments as the several cases herewith mentioned may require.

*Resolved*, That we recommend similar action to other medical societies, and solicit their active co-operation in carrying out the spirit of these resolutions.

M. K. TAYLOR, M. D.,  
*President.*

H. M. STARKLOFF, M. D.,  
*Secretary.*

## CLINICAL CASES.

BY N. S. DAVIS, M. D., &amp;c.

*Alcohol in the Delirium of Typhoid Fever.*

Mr. S—; a middle aged man, was attacked with the ordinary symptoms of Typhoid Fever, and after running a course of moderate severity, under the care of an intelligent and judicious practitioner of this city, convalescence ensued at the end of the third week. Under the use of mild tonics and suitable nourishment he continued apparently convalescent for several days; when the symptoms of fever returned. His pulse became quick; skin dry; mind wandering; slight sub-sultus; and bowels loose. The intestinal discharges were thin and of a grey or ash color, and the urine scanty.

His physician gave him a few doses of Dover's Powder with a small quantity of calomel, which had the effect to change the color of the evacuations, but not their frequency. He then gave small doses of nitrate of silver, and a Dover's Powder at night to procure rest, and endeavored to support the patient by nourishment and wine or porter. The patient, however, continued to get worse. He became more wakeful, more delirious, with more sub-sultus, a feebler pulse, and a continuance of the same looseness of the bowels. Being called in consultation, at this stage of the disease, I did not hesitate to sanction the continuance of nourishment with an increased quantity of stimulants, under the hope that the latter would contrall the delirium and sub-sultus as claimed by Dr. Todd and many others. To counteract an evident tendency to ulceration in the aggregated glands of the ilium, an emulsion of oil of turpentine and tincture of opium was ordered, and regularly administered. This treatment was continued three days, during which time the intestinal discharges became less frequent, the skin less dry; but the pulse continued frequent and feeble, and the force of the heart's action was decidedly impaired. The vigilance and delirium also increased. It was evident from the weakness of the impulse of the heart, the absence of any noted alterations in the pupil of the eye, &c., that the delirium in this case was functional, and that all the symptoms were such, as Dr. Todd

and others, claim to be under the control of alcoholic stimulants. Hence these stimulants, in the form of porter and brandy had been gradually increased, until during the last twenty-four hours, he had taken of the latter alone, more than a pint; but without the slightest amelioration of the symptoms. On applying the ear to the chest, I found over the middle lobe of the right lung a moderate sub-mucous rhonchus, with diminished respiratory murmur over the lower lobes on both sides.

Being satisfied that the alcoholic stimulants were doing no good, and that passive engorgement of the lungs had already commenced in addition to the previous grave symptoms, I advised his attending physician to omit all the alcoholic stimulants, and to give the following:

R. Strychnine,	1 gr.
Nitric Acid,	3 i.
Tinct. Opium,	3 ii.
Water,	3 ii.

Mix, and give a teaspoonful every 4 hours in sweetened water; also one of the following powders two hours after each dose of the strychnine solution, viz:

R. Pulv. Doveri,	3 i.
Pulv. G. Camph.,	12 grs.

Mix, and divide into six powders. He was also well supported with beef-tea or soup, salted with chlorate of potassa. During the first twelve hours after the stimulants were discontinued, he was very restless and delirious; he then became quiet and slept almost continuously for five or six hours, being aroused only to take a few spoonfuls of nourishment at suitable intervals. On awaking, he appeared feeble, but less delirious than for several days previous. The evacuations from the bowels, though not frequent, continued thin and greyish brown. On this account 10 drops of oil of turpentine were given in the form of an emulsion in place of the powders, one of the latter to be given in the evening only. At the end of forty-eight hours after commencing the use of the strychnine, the patient was entirely free from delirium, and all his symptoms improved. Soon after that, however, he complained of

severe stiffness in the muscles of the neck, with occasional sudden muscular twitchings, and the discontinuance of the remedy was deemed advisable. In its place he took, every four hours, a pill containing nitras argent. one-third of a grain and opium half a grain, and continued the turpentine emulsion, together with the same nourishment as before. Under a continuance of these remedies he fully convalesced in about four days.

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*Typhoid Fever with Paralysis of the Muscles of Deglutition.*

Miss C——, a Norwegian girl, aged 13 years, had been sick and under the care of a physician for little more than two weeks, before she came under my care. From what I could learn, she had been laboring under the ordinary symptoms of a grave case of Typhoid Fever; and had been treated with diffusable stimulants moderately, and a fair supply of nourishment. I found her with a small feeble pulse, 110 per minute; skin dry but not hot; face rather suffused with a dark or venous redness; extremities cool; bowels quiet; and total inability either to swallow, speak, or protrude her tongue. She was conscious and apparently rational; and made an effort to answer a question, but could not command the necessary muscular action. The mother said she had not swallowed a drop or spoken a word during the past two days. As it was evident that the force of the heart's action, and all the other important functions were failing under the combined influence of disease and starvation, I ordered the following:

R	Strychnine,	1 gr.
	Nitric Acid,	20 gtts.
	Tinct. Opii,	3 ii.
	Water,	3 ii.

Mix one teaspoonful, to be put into a teacupful of beef-tea, and injected into the rectum, and repeated every six hours. These injections were wholly retained and absorbed. This course was continued faithfully for two days; during which there was a decided improvement of the pulse, the color of the skin, and the expression of countenance. Near the end of the second day, she succeeded in swallowing two teaspoonfuls of milk,

On the following morning, she took several spoonfuls of milk with much greater facility. Still she could not speak. I now ordered the same medicine to be given by the month, in doses of 30 drops, every four hours; and a gill of sweet milk half way between the doses of the medicine.

On the fourth day after she came under my care, she could swallow quite easily, and speak, but not distinctly. Several evacuations from the bowels had also occurred, the discharges being liquid, and of a brown color. On this account I extended the interval between the doses of Strychnine, to six hours, and gave of oil of Turpentine and Tinct. of Opium, each eight drops, half way between. A liberal supply of milk was allowed for nourished, with the addition of rice. Under this treatment she continued to improve, and was fully convalescent at the end of ten days; which was about twenty-six days from the time her fever commenced.

*Remark.*—The strychnine was given in both of the preceding cases, from its known efficacy in increasing innervation and muscular contractility, and thereby increasing the force of the heart's action, and sustaining the functions of circulation and respiration.

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#### BOOK AND PAMPHLET NOTICES.

THE PRINCIPLES AND PRACTICE OF MODERN SURGERY. By Robert Druitt. Published by Blanchard & Lea, Philadelphia.

This is an admirable edition, just prepared from the last English edition. It contains one-third more matter than the previous edition, and has received a number of valuable additions from the American edition. The chapters on the Ophthalmoscope, on Ovariectomy, on Vesico-Vaginal Fistula, on the radical Cure of Hernia, and on the Excision of the Knee Joint, are especial improvements upon former editions. Not the least of the practical advances made by the author, is the recognition of the fact that Pymæia is but a result of Erysipelas,

and is a preventable accident, so that very much of the mortality after hospital operations is unnecessary.

These views were promulgated by the writer of this notice several years ago, and it is gratifying to see that other Surgeons are arriving at the same results. Meanwhile, the practical result of this advance, is, that in Mercy Hospital, Chicago, no patient has died or lost a limb from traumatic erysipelas, and no case of pyæmia occurred since the writer had charge of the Surgical wards.

E. A.

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ON THE THEORY AND PRACTICE OF MIDWIFERY. By Fleetwood Churchill, M. D., M. R. I. A., &c., &c., &c. With additions by D. Francis Condie, M. D., &c. A new American from the fourth corrected and enlarged English edition. Philadelphia: Blanchard & Lea, 1860.

The old students of "Churchill's System" will scarce recognize in the present portly volume of six hundred and fifty-odd pages, closely but clearly printed, something smaller, but as distinctly-typed matter, the familiar volume of 18 and 18 ; and which he prizes with his "Wilson," "Wood" and "Carpenter"—the very "household words" of his medical vocabulary.

But with its growth of bulk its value has increased ; and if he set much store by it in his early day, he will prize it none the less in its maturity and fullness, now that he, himself, has waxed somewhat more pondrous, mentally and physically.

We are not sure but it may be supererogatory to enter at this time into the details of what must be an almost unqualified approbatory criticism ; for the merits of Dr. Churchill's work as a text-book and epitome of obstetrics, its exceeding richness in statistics, its fullness of detail and general accuracy, and its author's prominence in the branch he has made the speciality of a long life, are well known to the profession.

The careful and elaborate revision, however, the important addition, and thorough posting-up to the present time, of everything especial or noteworthy in obstetric science, as well by the American editor as by the English author, warrant us in, at least, calling attention to it.

The most notable additions to the present volume, are the chapters entitled "*Obstetric Morality*" and "*Qualifications and Duties of Monthly Nurses*"—the latter being a collation of extracts from Churchill's "*Manual for Midwives and Monthly Nurses*," by the American editor, and not found in the Dublin imprint. The former is an essay on the operation of craniotomy, the result of a controversy upon the subject, which occurred during 1858, between Churchill and a writer in "*The Dublin Review*." The treatise is exhaustive, logical and satisfactory, settling definitely the mooted point which has distressed many very worthy people, who have allowed religious prejudice to overcome their common sense.

Dr. Churchill claims, and we think, truly, that no English author has hitherto entered so fully into the subject.

F. W. R.

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#### O'REILLEY ON THE PLACENTA AND NERVOUS SYSTEM.

This recent little book consists of a series of papers published from time to time in the *American Medical Gazette*, entitled, "The Anatomy and Physiology of the Placenta." "The connection of the nervous centers of animal and Organic life." This last subject is illustrated by vivisections, and is illustrative of the influence of the maternal organization upon that of the foetus through the placenta.

There is also a paper containing "observations on syphilitic iritis."

These papers are ingenious and elaborate arguments in favor of the opinions of the author, as to the nature of the structure and functions of the placenta.

Although these opinions differ very decidedly in many respects from the doctrines of the present day, and come nearer a representation of those held by Hyppocrates than Coste, Cazeau and other modern accepted authors; Dr. O'Reilley has shown a zeal and tenacity in favor of them, which make us believe in his honesty of purpose.

W. H. B.

SELECTIONS.

INFANTILE PATHOLOGY AND THERAPEUTICS.

BY A. JACOBI, M. D.

*On Spinal Infantile Paralysis (Spinale Kinderlahmung.)* By Jacob V. Heine. (*Zweite Auflage. Mit 14 Tafeln. Stuttgart, 1860, pp. 204.*)—Dr. Heine's book on Spinal Infantile Paralysis ("essential paralysis") is, properly speaking, another edition of the same author's "Observations on Paralytic Affections of the Lower Extremities and their Treatment," published in 1840; but the number of cases reported, and the increase in observations and pathological investigations, is such as to justify both the change of the title, and the altered appearance of the work in general. It is but justice to the celebrated writer who is universally acknowledged as principal authority on the subject of infantile paralysis, to commence by giving his views as fully and concisely as our space will admit.

Essential or infantile paralysis runs its course in two stages, the first of which is sudden in its appearance. It has generally a very mild character, the child showing some symptoms of slight fever in the evening, and being paralysed when taken up in the morning; sometimes, however, it is more serious, the fever being high, congestion and general irritation, and symptoms of difficult dentition, being present. The child is restless, will cry in paroxysms, the eyes are half open during sleep; there is sometimes vomiting, diarrhoea, and the symptoms of rheumatic fever; in a very few cases the first symptoms of an acute exanthema, and in some even convulsions, the attacks of which will sometimes return. After this the child is quiet, fatigued, and paralysed. Paralysis mostly affects the lower extremities, sometimes an upper one at the same time; frequently one lower extremity only, without any affection of the arms; in some cases paralysis is of so local a nature as to affect single muscles only. The urinary bladder and rectum are sometimes debilitated, but never paralysed for a longer period.

The second stage is that of paralysis. Turgor vitalis is diminished, skin and muscles are flabby. Sensation little or not at all affected. Paralysis of the trunk and arm disappears gradually, debility of the back only remaining and leading to paralytic scoliosis. If the two lower extremities are affected, one will, in the course of time, recover its mobility; sometimes only a number of muscles of the leg and foot remain paralysed, this result being probably brought on by the resorption of ex-

udations. This partial recovery, however, will cease to go on after four or eight weeks. Then temperature, fat, and muscles diminish, the bones decrease in length and thickness. The muscles will undergo shortening, retraction setting in first in the tendo Achillis, and producing gradual contraction, and lastly deformities, in consequence of repeated attempts at locomotion. Lateral curvatures of the spinal column are frequent. The skin assumes a bluish tint; frostbites and ulcerations are the consequence of the diminished power of circulation. Bowels often move slowly and insufficiently; menstruation is not affected, and was even observed by Dr. H. in a girl twelve years old. Mental and sensory functions are never affected; the diseases of infantile age, and others too, are easily overcome; and not unfrequently patients will reach an advanced age; there is on record the case of a man who arrived at the age of forty-nine years.

The diagnosis from cerebral affection is not very difficult.—Wherever there are any cerebral symptoms in the beginning, they will readily disappear in this paralysis. Contraction is never observed in the commencement, the limbs are perfectly paralytic, and paralysis takes place at the same time in all the affected parts; it has a tendency gradually to diminish, but not to progress. Both arms are never affected at the same time, nor are the arm and leg of the same side; but always either both legs, or one leg, or one arm. Affection of the trunk is not unfrequent, and produces paralytic scoliosis; in such cases the motory nerves of the lumbar and sacral plexuses of either side, and those which ascend on either side of the spinal cord, are affected. This affection is unilateral in hemiplegia. Where one arm only is paralysed (a rare occurrence), the affection has its seat in the brachial plexus of the same side; in these cases generally all the muscles are affected. Cases of transverse paralysis are very rare indeed. Sensation is hardly affected, except in the very commencement, and then, too, but slightly. There is no pain in the secondary period.

The decrease is greater than in spastic cerebral hemiplegia or paralytic kyphosis; it diminishes from the center to the periphery, and has been observed to be as low as sixty-three and a half degrees. Motion, nervous influence, and circulation are certainly diminished, and thus the diminution of temperature is readily explained. Arteries and veins have been found smaller, and to such a degree this diminution in size and lumen may extend, that Hutin has a case in which a number of smaller blood-vessels had entirely disappeared.

The diagnosis from wasting palsy (*atrophie musculaire progressive*, Cruveilhier) is given by the fact, that in wasting palsy

atrophy is the primary injury of which paralysis is the natural consequence, whereas in infantile paralysis the palsy is primary, being brought on by diminution of both nervous influence and circulation of the blood.

Deformities, in the course of infantile paralysis, do not take place except after a lapse of two or three years, and after repeated attempts at locomotion : whereas in cerebral and spastic hemiplegia, strong contractions of the healthy muscles set in from the commencement, with subsequent deformities. These are : 1. *Pes equinus*, from contraction of the *tendo Achillis*; 2. *Pes varus*, from contraction of the *tendo Achillis*, with contemporaneous paralysis of the *peronei*; 3. *Pes valgus*, from contraction of the *tendo Achillis*, with paralysis of the *tibialis anticus* and *posticus*; 4. *Pes calcaneus*, from paralysis of the *tendo Achillis*, etc.; 5. Contractions of the knee and hip joints, from paralysis of the extensor muscles. In the kind of *pes varus* alluded to, the deformity is the consequence of the paralysis of some single muscles which have lost the power of reacting on galvanic influence (always unaltered in cerebral and spastic contraction); further, the ligaments of the ankle-joint are very loose and flabby, to such an extent that the foot is very apt to turn upwards or downwards; whereas congenital *pes varus* never shows this abnormality. It must, however, not be forgotten that all the deformities may be found occasionally in one individual. Wherever the paralysis affects an upper extremity, it is generally complete; thus contractions and consecutive deformities are out of the question. The paralysed arm, however, is apt to increase in length from hanging downwards. Nevertheless, the arm has been found shortened by one to two inches, the lower extremity by two to six inches, the bones sharing throughout the fate of the soft parts; even the *petalla* has been diminished in size one-third. All the epiphyses, protuberances, and the pelvis, take part in the general lack of development. This fact coincides with the experiments of Prof. Schiff, of Berne, Switzerland, showing that the bones become atrophied, in dogs, after the nerves have been cut; the ligaments become loose and flaccid.

There is a large amount of calcareous matter contained in the urine at the time when the muscles undergo a rapid process of atrophy. Dr. H. declares to have no personal knowledge of this fact, as he did not examine the urine at the proper time.

The number of cases of infantile paralysis recorded by Dr. H. amounts to 192. Of these, 158 were such as he comprehends under the name of spinal infantile paralysis. Of these were cases of Paraplegia, 37—males, 17; females, 20. Hemiplegia, 34—males, 18; females 16. Partial paralysis, 84—

males, 44; females, 40. Paralysis of one arm was observed in two cases; it was very intense, not complicated with paralysis of the lower extremities, and resisted every attempt at a cure. Paralytic lordosis was observed in one case. The etiology of infantile paralysis is best shown in Dr. H.'s opinion, by the time in which the majority of the cases occur, viz: the second and third half year. In this period the nervous system undergoes a considerable development, and therefore a great tendency to alterations readily explained. Dentition, acute and chronic exanthems, hyperæmic affections, congestion and irritation, meningitis, exudative process, are mostly observed about this time. Frequently just such children are affected as show the most prominent symptoms of perfect health and a good constitution. The main symptoms of the first stage of the disease are fever; high temperature; tendency to fright; convulsions; dentition; and sometimes a pain along or on some part of the vertebral column. The feverish and exudative character of the malady is further shown by the fact, that a partial recovery may take place in the commencement of the trouble, which will cease to go on at a later period.

Dr. H. has seen some cases of rheumatic paralysis which could be mistaken for infantile paralysis; but they are very rare. After the paralysis has become the only symptom of the disease, viz: in the second stage, the diagnosis from cerebral affection is given by a number of secondary symptoms:—1. Entire integrity of the cerebral functions. 2. Entire absence of galvanic irritability in the paralysed limb. 3. Paralysis follows immediately on the general and local morbid symptoms of the first onset. 4. Paralysis is frequently observed in both of the lower extremities, and localized in them; hemiplegia being frequently but the remainder of paraplegia. 5. Paralysis is of a very intense nature. The subsequent curvature of the spine has a decidedly paralytic character. 6. Atrophy and decrease of temperature is more remarkable than in paralysis following on cerebral affections. Prof. Budge has found both symptoms remarkably strong in animals after he cut their spines. 7. Paralysis of one arm, which has sometimes been observed with similar symptoms, was proved by post-mortem examinations to be brought on, not by cerebral affection, but by a hyperæmic condition of the very part of the spine from which the branchial plexus takes its origin. 8. Local paralysis with entire loss of the power of standing, has always, and universally been ascribed to a disease of the spine. Infantile paralysis, as such, Dr. H. declares to be incurable. At all events, this fact would prove a great difference from paralysis excited by peripheral causes.

A merely superficial examination shows that the seat of the alteration must be deep and central. The grey substances of the spine is very hyperæmic even under normal circumstances. Thus it is no wonder that partial lesions should be frequent. A lesion of the spine as a whole is very rare ; but Prof. Schiff has proved by experiments that complete paralysis may follow on the alteration of a limited part of the medullary substance. Generally a lesion of the right side of the spine will produce a paralysis of the right limb, and vice versa. Sensation may be unaffected, a circular pain being felt only in cases of mere compression of the spine by dilatation of the blood-vessels and exudation, or by diseases of the meninges. Sensation may be unaltered, without even this circular pain, in cases where the anterior lateral parts of the spine are diseased. It will be totally lost, but the function of touching kept, in diseases of the anterior parts and the whole of the grey substance. Paralysis may be partial in cases with slight and very limited affections of the spine.

As infantile paralysis has no tendency in itself to terminate fatally, there are naturally but a few post-mortem examinations on record. A very general result was atrophy of the limbs, especially of the muscles, and their degeneration into adipose, or in one case, cellular tissue. Nerves and arteries require a longer time and have less tendency to become atrophied, but they have been found so. Even the grey substance of the spine is sometimes greatly diminished in volume.

The treatment has to differ according to the stage. As to the first stage, treatment comes generally too late ; wherever it is timely, antiphlogistic measures are to be resorted to. Leeches and cold applied to head and spine ; flying vesicatories to the spine, particularly over the region of the brachial and lumbar plexuses ; lancing of the gums, if necessary ; and calomel, in the beginning in large, and later in smaller doses. In the second stage, the entire or partial recovery (the former being exceedingly rare) depends on the nature of the case : on the amount of moving power remaining ; on the duration of the disease ; the degree of atrophy ; the age of the patient, and his perseverance in following up the requisites of a rational cure. The indications are these : 1. To bring on resorption of the extravasation or exudation ; compressing the spine ; flying vesicatories, or croton oil applied locally ; iodine of potassium and cod-liver oil internally ; and salt baths. 2. To remove the paralysis symptomatically ; administration of *mux vomica*, two daily doses of one-sixteenth to one-sixth grains of *strychnia* (at the same time one-fourth of a grain *endermatically*), until electric movements of the limbs are produced, and

again after these symptoms have subsided. Embrocation of alcoholic remedies; caustic ammonia; mustard; sea baths. In scrofulous individuals, sea baths, iodine of iron, cod-liver oil, nutritious diet. 3. To remove the muscular atrophy; Stimulant baths; salt baths; animal baths; frictions; gymnastic exercise; local faradization after Duchenne's method. 4. To prevent deformities or to remove contractions; Mechanical appliances for standing and walking; india rubber bandages; emollientsalves; oil; apparatus for exentsion; Scarpa's shoe; tenotomy; supporting apparatus; kneading; frictions. Local use of electricity is of little or no use, as, in the majority of cases, no reaction at all is observed. Junod's apparatus will increase, momentarily, turgescence and temperature, without, however, having a continuous effect. The general constitution is to be supported by quinine, iron, proper diet, and baths; and several of the remedies and appliances have to be combined, in many cases, in order to produce a sufficient, if any, effect.—*American Medical Times.*

## ILLUSTRATIONS OF HOSPITAL PRACTICE.

### PENNSYLVANIA HOSPITAL.—SERVICE OF DR. MEIGS.

*Herpes Zoster.*—A strong, robust sailor came into the hospital on Monday last, having been sick for five days. He had first been taken with a pain in his right side, of a sharp, extremely severe character. He complained then of nothing else but this pain. Three days later an eruption appeared on the back of his right side, and extending around the loin, on that side. It presented the well marked characteristics of herpes zoster. The pain still continues, but not as severe as before the eruption.

Herpetic eruptions are generally associated with a disordered state of the blood. The pain is characteristic of the disease; it frequently continues for weeks, and sometimes even months after the eruption has gone.

The treatment in this case was a blue pill at night, followed by castor oil. Locally a belladonna plaster may be applied, or a liniment, composed of tincture of opium, aconite, and sweet oil. Watson recommends to give iodide of potassium and quinine, if the pain is very severe.

*Pathological Specimens—Remarks.*—The patient from whom the first specimens were obtained had entered the hospital on the morning of —. He was thirty years of age, and for some time back had been very dissipated, having had several attacks

of delirium tremens. He presented the symptoms of approaching delirium tremens when entering; white tongue, tremulous movements, pulse somewhat frequent, pale countenance; he was put on tincture of bark and lupulin. He did not sleep. Toward evening on the day of entrance his pulse rose to 120, and still later at night he became suddenly worse. The pulse rose to 130-40; the patient sank in a comatose condition, and died at four o'clock in the morning.

*On Post-mortem examination*, a very small amount of urine was found in the bladder, and this, on being tested in the ordinary method, was found to contain albumen. This strengthened the suspicion that his death was due to uræmic poisoning, rather than to delirium tremens.

The *liver* was somewhat enlarged, and on microscopical examination, found to be loaded with fat cells, and oil globules.

The *kidneys* presented the usual appearances of atrophy from granular degeneration with the microscope, and were found to be deprived of their epitheium, and the cortical substances very much diminished.

The *heart* was not fatty; the *lungs* were healthy.

Uræmia in this case was the chief cause of death. As the renal degeneration advances in these cases, and the kidneys fail to eliminate the urea from the blood properly, the urea gradually accumulates in the system, and, acting upon the nerve centers, as an irritant narcotic poison, produces often, very suddenly, convulsions, delirium, or as in this case, coma and death.

*Diphtheria*.—The next specimens presented were taken from a man 24 years of age, a strong, well built German, tailor by trade, who came to the hospital on Thursday afternoon, at 4 o'clock, P. M.

He stated, on his admission, that he had been taken sick on Saturday afternoon previously, but did not feel very sick until Thursday, when he walked to the hospital, a considerable distance.

His pulse was then 122; all the faucal structures were much tumified; the palatine arch, tonsils, uvula covered with a dirty white, greyish exudation; the external cervical lymphatic glands behind and below the ramus of the lower jaw were tumified and hard. There was, and this is of especial importance in acute diseases of the fauces, in croup, scarlatina anginosa, maligna, diphtheria, etc., acute œdema below the chin; there was difficulty of swallowing, his breathing labored, more

frequent than natural; there was stridor trachealis, not, however, the croupy stridor. In adults we rarely find, even in true membranous croup, the confirmed croupy stridor of infancy, on account of the different anatomical relations of the tracheal and laryngeal passages. Articulation was indistinct.

The patient became rapidly worse; at night the pulse was 132; he sank rapidly, and died toward morning. He was conscious almost to the last.

A *post-mortem* examination was made, and the specimens are here presented.

You see the tongue, the palatine arch, tonsils, uvula, all swollen, and covered, more or less, with patches of exudation of a dirty, greyish color; going into the trachea we find a thick pseudo-membrane filling it almost completely, and extending into the secondary and tertiary ramifications.

Within a very short time some continental writers have stated in journals, that *albumen is almost always present in diphtheria*. We have examined the urine of this patient, and here you see quite a copious precipitate of albumen thrown down on the application of the heat and nitric acid tests. This is the first case in which I have had occasion to observe this phenomenon.

There is no doubt, from this and other facts, connected with this disease, that it depends upon a blood poison. Some believe it to be identified with, or analogous to scarlet fever, depending upon the same cause. Yet, though both diseases may have something alike, both being blood diseases, yet we cannot consider them the same. Second attacks of scarlet fever are very rare. A patient who has had scarlet fever once, is almost sure to be protected from another attack of the same disease. Not so with diphtheria. Diphtheria does not protect against scarlet fever, nor *vice versa*.

In reference to the treatment of this, generally mild, but not unfrequently formidable disease, I prefer in the early stages the golden sulphate of antimony, in combination with Dover's powder;—say  $\frac{1}{4}$  of a grain of the former to  $\frac{1}{2}$  a grain of the latter. Absolute repose in bed is imperatively demanded, as in all diseases depending upon a blood-poison. In the latter stages, and when the disease is of a very adynamic type, iron and quinine are indicated.

As a local application I prefer capsicum. The patient may either drink capsicum tea, or his throat may be swabbed with a strong infusion of capsicum.

A good formula for the latter purpose is,

R. Capsici.,	℥ ii.
Acid. gallic.,	℥ ii.
Aquæ,	f℥ i to f℥ iss.

Stimulating applications around the throat and neck are of service. A very good one is a mixture of equal parts of tincture of capsicum and tincture of cantharides, to be applied until the skin is reddened, and repeating when the effect begins to pass off.—*Med. and Sur. Reporter, Sept., 1860.*

### OBSTETRICS.

*On Iodine Injections in Ovarian Cysts.—By Prof. Scuh.—*

The primary action of iodine injections on ovarian cysts is remarkably variable; and that not only according to the quantity and dilution of the tincture, the amount of the still remaining contents of the cysts, and the peculiarities of the individual, but also according to the condition of the cyst itself as regards its thickness, solidity, its connections with surrounding parts, its surface, and the abundance or scarcity of the supply of vessels—leading to the greater or less stimulation of the cyst, as well as its influence on the nervous system. The peculiarities of the walls of the cyst due to their permeability, and their capability of exosmose and endosmose, cannot be determined beforehand with any exactitude, not only in different patients, but even in the same patient, in a case of repetition of the injections—changes being determined in the texture of the sac which cannot be appreciated. A certain quantity of the tincture, which on the first occasion scarcely exerted any local or general influence whatever, may on a repetition of the injection give rise to the most violent and dangerous symptoms. This is the more extraordinary because the same disparity of effect is not observed in other affections in which the iodine injections are employed, *e.g.* ascites, abscess, thyroid cysts, enlarged bursæ, etc.

The author has studied the primary effects of injections on fifteen occasions. Sometimes there is no pain or tenderness on pressure; or if the latter exists to some extent, it only lasts for a day or two, the iodine freely passing into the urine from the commencement. Sometimes severe pain is produced at the time of the injection, which persists with exacerbation, or it only first comes on some time after the operation. At the same time a great change in the general condition is noticed—restlessness, vomiting, sleeplessness, faintness, and rapidity of pulse

being among the symptoms. In some cases the pulse remains unchanged, but great alteration has taken place in the countenance. In other instances the pulse is very small and feeble, as well as rapid, the extremities are cold, and consciousness is temporarily lost—alarming symptoms that may continue for several hours or a day, and then gradually cease. Not only is iodine found in the urine a few minutes after injection, but likewise in the saliva and in the vomited matters; this iodine reaction being exhibited for from four to twelve days, although the other symptoms have usually terminated earlier. In some cases the primary influence seems to be expended on the cyst and its vicinity, since great pain and tenderness arise, to be followed by shivering and heat, indicating either suppurative inflammation of the cyst, or the development of a dangerous peritonitis. There can be no doubt that the symptoms of poisoning above mentioned arise chiefly from the rapid passage of the iodine into the blood; but although the nervous system may be principally affected, through this, its becoming so so rapidly in some cases also indicates a primary action of the iodine upon it.

The *indication for the iodine injection* is the existence of a unilocular globular cyst which has not reached too great a size, having but thin walls, presenting an equal resistance at all points, and containing thin, serous fluid. In order the better to judge of these points, a preliminary puncture of the cyst should always be made, discharging the contents as far as possible. The manner in which this preliminary puncture is borne—*i.e.* with respect to the amount of irritation produced—will give some idea as to the quantity and concentration of the fluid which is hereafter injected. This injection should be proceeded with as soon as the fluid has collected again in sufficient quantity for a puncture to be made without risk of injury to the intestines, it being by no means desirable to wait until the tumor has reacquired its former volume. When after the preliminary puncture a large mass is still left behind, we may conclude either that the walls of the cyst are thick and vascular, that there are multiple cysts, that there are villous or other pediculated growths from the inner wall, or that the cyst is interwoven with fibrous or other parenchymatous structure. These circumstances diminish greatly the chance of success, or they prohibit the performance of the injection. In some rare cases, indeed, in which two or three cysts have existed, the injection of the largest of these has sufficed for a cure; the iodine, through the operation of endosmose or exosmose, exerting its influence upon the smaller cysts; or the smaller cysts having become perforated through the larger, the remedy thus gains

access to all. But upon such exceptional instances the surgeon cannot count. In very large cysts, by which great traction of the viscera, dyspnœa, etc., have been induced, and in cysts exhibiting irregularities of surface and indurations, which may arise from the aggregation of numerous cysts, or from the presence of fibrous, carcinomatous, or other degenerated masses, the idea of the injection should be entirely abandoned. It would lead to a more rapid growth, or give rise to suppurative inflammation. When the puncture gives issue to the thick, gelatinous fluid, this indicates a condition of the walls of the cysts not easily influenced by iodine. It is very rare for such fluid to become thinner and more serous on subsequent punctures.

The fluid to be injected should amount to from two to six ounces, consisting of tincture of iodine diluted by from one to eight parts of water, adding a scruple of iodide of potassium. As the extent of its stimulating power cannot be always foreseen, it is best, especially on the first occasion, and when the cyst has been nearly emptied, not to employ it too concentrated. The desirableness of preventing access of air during the injection is obvious: and the canula and tube affixed to the syringe are best made of platinum, this being the metal upon which iodine exerts least action. The fluid is not to be allowed to run out again; but should very severe pains follow immediately after the injection, some water should be thrown in, in order to effect dilution. The stimulation of the cyst by the iodine usually leads to an inflammation which is limited to the walls of the cyst. The serous exudation is increased, and the tumor in a few days reacquires the size it had prior to the operation. After then the size again gradually diminishes, and it is a very favorable sign when with such diminution in size an increase of resistance or an actual induration is perceived. This latter condition is due to coagulation of albuminous matters induced by the iodine, and these are often so thick that a repetition of the puncture at this period gives issue to no fluid, or only a very small quantity. After weeks or even months further changes take place, in virtue of which the coagula disappear, and the contents of the sac again become serous. As long as any diminution in the size of the tumor is observed, however slow in progress this may be, no repetition of the operation should take place; nor should such repetition be put into force as long as any considerable tenderness on pressure remains. It is indicated when the inflammatory condition has been quite transitory, and when the enlargement takes on an increase or remains completely stationary for longer than six weeks. In some cases the repetition may be necessary from two to six

times. When from the entrance of air, or other cause, foul suppuration, with extrication of gas, is engendered, and there is tenderness on pressure, fever and loss of strength, a simple puncture should be made, and a catheter left in or the aperture enlarged. In all such cases a most careful cleansing of the cavity by means of repeated injections of water or decoction of bark should be effected. It has been said that by repeated iodine injections the contents of a cyst may be converted from a purulent to a serous fluid; but in this statement the author puts no trust, a similar result never being produced by injection of abscesses.

The statistics of the results of the iodine injection are given very differently by different authors. This seems to have arisen more from the mode in which the cases were chosen, and the degree of exactitude with which they were reported, than from trifling differences in the operative procedure. The author can only speak personally respecting six cases for which fifteen injections were employed. In only one of these did complete recovery take place, and that after a second injection. It was the only one of the six which united all the conditions necessary to secure a favorable issue. In a second case the cyst was bilocular, and a slight diminution of its size only resulted from five injections. The others were multilocular cysts, or the cysts contained a thick, gelatinous fluid—constituting cases which were, according to the author's present conviction, unsuited for iodine injection. In two of them no essential change was produced, and in the others the end of the patient seemed to have been hastened, partly through the speedy repetition of the operation, and partly through suppurative inflammation and peritonitis being induced.—*Zeitschrift der Aerzte zu Wein*, 1859, No. 48.—(*Medical Times and Gazette*, June, 16, 1860.)

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#### PRACTICE OF MEDICINE.

*On the Rational Treatment of Delirium Tremens.*—By Prof. Dunglison, of Philadelphia.—In a letter to Prof. Laycock.—[In the *Edinburgh Medical Journal* for October, 1858, I gave a series of cases of delirium tremens, all treated successfully without opium or alcoholic stimuli. I showed, too, that the delirium and sleeplessness indicate comparatively harmless conditions of the nervous system; that they are usually symptoms of some disease occurring in persons of drunken habits; that they usually cease within a given time, spontaneously; and that the proper method of cure is to treat the general or

particular morbid state, whatever that may be, with which the delirium is associated. I further showed that opium and alcoholic stimuli, as generally recommended for this disease, were not only useless, but dangerous drugs. The paper has attracted considerable attention both at home and abroad, and will, I trust, have a beneficial effect in the management of this class of cases. The subjoined letter, addressed to me by Professor Dunglison, seems so well calculated to advance this object, that I have ventured to publish it. And I feel the more warranted in doing this, because it is simply an act of justice to Professor Dunglison, inasmuch as it proves that he was among the earliest advocates of a more rational method of treatment of delirium tremens.—T. L.]

PHILADELPHIA, Feb. 21, 1860.

*Dear Sir:*—Some time ago I had contemplated expressing to you the satisfaction I felt in persuing the views you entertained on the subject of the treatment of delirium tremens, of which I had, at one time, an opportunity of seeing much in the wards of the Philadelphia Hospital attached to the extensive Almshouse of this city, and containing upwards of 2000 inhabitants; but circumstances withdrew my attention from the subject, until it was revived by an article in a late number of the *British and Foreign Medico-Chirurgical Review*, and by Dr. Inman's recent work, entitled "Foundation for a New Theory and Practice of Medicine."

It has been not a little gratifying to me to find that, without having seen what I have written on the subject, you should have arrived at results so nearly corresponding with those of my own observation. In the *American Medical Intelligencer* for May, 1842, of which I was editor, I inserted the following article, "by the Editor."

*On the Eclectic Treatment of Delirium Tremens.*—In a recent work, *Practice of Medicine*, vol. ii. p. 346, Philadelphia, 1842, we have stated that the course pursued by us in the treatment of delirium tremens has been entirely eclectic, in many cases expectant, and that the results have been such as to satisfy us. Under the view which we entertain of the nature of the affection—that the irregularity of nervous action is usually induced by the withdrawal of an accustomed stimulus, and that the recuperative powers are generally entirely sufficient to bring about the necessary equalization—we have treated the mass of the cases which have fallen under our care without either excitants proper, or opiates. In the first instance, an emetic is given at times, if the patient is seen while laboring under the effects of a debauch, or any particular reason exists for its ad-

ministration; and afterwards, a state of tranquility in the chamber is enjoined—the intrusion of too much light and noise being prevented; and, when the stomach will retain it, gently nutritious and easily digestible diet is prescribed, the bowels being kept open by gentle cathartics;—and this has comprised the essential part of our treatment. In time the hallucinations have disappeared, sleep has returned, and entire restoration supervened. The preceding remarks are a proper prelude to the statistical account of the Women's Lunatic Asylum, at the Philadelphia Hospital, for the years 1840 and 1841, which is under our charge during the six months commencing on the first of November and ending on the first of May, and under that of Dr. Pennock for the other half of the year. It may be proper to add, that since November 1, 1841, to the present time (May 1, 1842,) not a drop of alcoholic liquor has been used in the treatment of delirium tremens in the Women's Asylum, although some severe cases in the third stage have occurred, which, notwithstanding, terminated most satisfactorily.

*Patients admitted into the Women's Lunatic Asylum of the Philadelphia Hospital.*

YEAR 1840.

	Cases admitted.	Cured	Died.
Intoxication, .....	25	25	..
Delirium Tremens, 1st stage.....	34	34	..
“ “ 2d stage.....	10	10	..
“ “ 3d stage.....	4	3	1

The fatal case was not seen by us. The patient died on the morning after her admission into the hospital, and had been treated in the city for nearly a week previously.

YEAR 1841.

	Cases admitted.	Cured.	Died.
Intoxication.....	19	19	..
Delirium Tremens, 1st stage.....	21	21	..
“ “ 2d stage.....	9	9	..
“ “ 3d stage.....	6	6	..

In the third edition of my *Practice of Medicine*, (Philadelphia, 1848,) I state further: “A more recent authentic abstract of the number of patients admitted into the same asylum, from the 1st of November, 1844, to the 4th of February, 1845, exhibits that thirty-two cases were received, eighteen of which are classed as intoxication. Of these not one died. The treatment here again was eclectic, often expectant, and not a drop of alcohol was given.”

The results of the above plan of treatment were referred to some time ago, in an interesting pamphlet on “Rational Medi-

cine," by Professor Worthington Hooker, of New Haven; but as I had doubts whether either the *Medical Intelligencer* or my *Practice of Medicine* is in the libraries of Edinburgh, I have copied from them what bears on the rational view which you have embraced of treating delirium tremens. As I have remarked in the latter work: "It has, in the first place, restored the individual to health, not, perhaps, as rapidly as either brandy or opium, but more permanently. The term 'restoration to health' is hardly, indeed, applicable to the change effected by the former remedy. The patient is merely placed in the condition in which he was before the stimulus was withdrawn; and as he was 'restored' by the brandy, he is apt, as before remarked, to regard it as indispensable to his healthy condition. In the 'total abstinence' plan, however, the habit of drinking is broken in upon; and even if it should require a short time longer to restore the individual, there is the consolatory reflection, that delay is not useless, and every day's privation of the wonted stimulus diminishes the feeling of necessity, and the desire for it. One evidence of the good effect of the course is, that they who are dismissed cured rarely or never return to the wards. This is an observation that has been made at the Philadelphia Hospital; and as it concerns paupers, it is probable that the cures are real and permanent, for, were it otherwise, they would, in subsequent attacks, be compelled, in their destitution, to seek the wards of the same excellent charity."

Pardon me, I pray you, for this long detail, which I hope may not be without interest to you, and believe me, with great respect, yours truly,

ROBLEY DUNGLISON.

## LECTURE ON PARTURIENT HEMORRHAGE.

### BEING THE FIFTH OF A COURSE ON THE COMPLICATIONS AND SEQUELÆ OF LABOR.

Delivered in the University Medical College, New York,

BY T. GILLARD THOMAS, M. D.,

Physician to Bellevue Hospital.

*Gentlemen:*—There are three distinct periods at which the child-bearing woman is liable to an inordinate loss of blood, namely, during pregnancy, during labor, and for one month subsequent to that process.

This division is by no means an arbitrary one, but is demanded by the circumstances of the case, and required for

convenience of study and lucidness of understanding. Even the limit of one month given to the third variety is based upon good grounds, for at the end of that time the heretofore hypertrophied uterus having undergone involution so far as to have arrived at nearly its non-pregnant state, any flow taking place thereafter is properly regarded as disconnected with the puerperal condition.

These three distinct periods divide puerperal hemorrhage into three equally distinct varieties, viz.:

Hemorrhage before labor.

Hemorrhage during labor.

Hemorrhage after labor;

or, as they may be styled for convenience of reference,

\* Ante-partum hemorrhage.

Parturient “

Post-partum “

The nature of the course which now occupies us will preclude the investigation of the first of these varieties, and we will proceed at once to that of the second.

Parturient hemorrhage includes every excessive flow occurring during the act of parturition, whatever be its source, its violence, or its results.

#### *Sources of Parturient Hemorrhage.*

The sources from which this hemorrhage may occur are these:

(a) The ruptured vessels of the os and cervix uteri.

(b) “ “ “ “ body of the uterus.

(c) “ “ “ “ umbilical cord.

(d) “ “ “ “ vulva.

(e) “ “ “ “ which unite the uterus and placenta.

(a) As the os and cervix uteri dilate in the first stage of labor, the arterioles which thickly stud the mucous membrane generally rupture, a small amount of blood pours forth, mingles with the tenacious secretion of the glands of the Naboth, and constitutes what has been called, in the language of the lying-in room, the “shew.” Sometimes this flow amounts to two or three ounces, but this is exceptional, the rule being that it is just sufficient to thoroughly tinge the mucus with which it mingles. It therefore does not deserve the technical name of hemorrhage, and scarcely ever, we may even say never (unless injury has been done by the introduction of the hand or of instruments,) will it do more than alarm a primiparous woman

\* The strict meaning of “ante-partum” is “before having brought forth,” and a more exact term would be “ante-parturient,” but the connexion will prevent any confusion, and the substitution of a new for an old familiar name is not desirable.

and call for an assurance of the fact just stated, on the part of the physician.

(b) One of the symptoms of rupture of the uterus is a free escape of blood; but recall the terrible symptoms which mark that appalling accident, and you will see at a glance that they will at once remove the case from the classification of hemorrhage, and place it in that of the most fatal of the complications of labor. In other words, the gravity of the accompanying symptoms will mask this one entirely, and cast it completely into the shade.

(c) Rupture of the vessels, or of one vessel, of the funis umbilicalis can at this day be no longer a matter of doubt, since in evidence of its occurrence appear the names of Delamotte, Levret, Baudelocque, Naegle, Cazeaux, and many others. It is, however, a rare accident, fortunately for diagnosis, since there are no means other than mere absence of constitutional signs on the part of the woman, by which it could be differentiated from rupture of the utero-placental vessels.

(d) When the flow occurs from rupture of the vessels of the vagina or bulbi vestibuli, it will generally have been the result of some violence, and our attention will likely be drawn to it by the sensation of pain on the part of the patient. Should it not, an examination, digital or ocular, will readily reveal it.

The first of the four causes which have been so far examined into is insufficient to produce a flow really deserving of the denomination of hemorrhage; the second is accompanied by other grave symptoms which make this one a secondary matter; the third and fourth are of very rare occurrence, and it may be safely announced as a rule that *whenever, during labor, a hemorrhage occurs, it arises from partial separation of the placenta from the uterus, and consequent rupture of the utero-placental vessels.*

*Varieties.*—Generally the placenta is so placed in the uterus that the os may dilate and the child be expelled without its separation being involved in these processes, and it will, under such circumstances, retain its position and the integrity of its attachment, unless some untoward accident, such as a blow or fall, occur to displace it. At other times, however, it is attached to one side of the cervix, or over the entire cervix, so as to prevent the dilatation of this part, through which the child cannot pass as long as it remains closed. Now as the os and cervix *must* be dilated to permit the passage of the child, and as their dilatation *must*, under these circumstances, to a greater or less extent, detach the placenta and rupture the utero-placental vessels, it follows, as a deduction, that hemorrhage thence resulting is not produced by accident, but, *ex necessitate rei*, is unavoidable.

For these reasons, all hemorrhages occurring during labor, have been very properly divided into

1st. Accidental hemorrhage.

2nd. Unavoidable hemorrhage.

The second variety, you perceive, is synonymous with placenta prævia, an appellation which defines the unfortunate location of the afterbirth which produces it.

Leaving the subject of placenta prævia and its resulting unavoidable hemorrhage for our next lecture, I will occupy you to-day with the consideration of that variety which is purely the effect of some accident, and which, like every other accident, might, under favorable circumstances, have been avoided.

#### *Accidental Parturient Hemorrhage.*

*Frequency and Prognosis.*—You will, I imagine, get a much more correct notion of the frequency of accidental hemorrhage, by an examination of the reports of one faithful observer, than by averaging a large number of cases collected in the loose and unreliable manner which ordinarily characterizes the accumulation of statistical evidence. Dr. Collins, during a mastership of the Dublin Lying-in-Asylum of seven years, had 16,654 births occur under his supervision, and in this immense number only thirteen cases of this variety of flooding were met with; considerably less than one in one thousand. Small as this proportion is, however, it is larger than it should be for true accidental parturient hemorrhage, since Dr. Collins brought under the same head all those cases occurring during the three last months of pregnancy and during labor.

Of the thirteen women thus attacked, two died, and both after serious operations: one after version, and the other after craniotomy, so that it is by no means proper to conclude that they died from the hemorrhage. Of the children one only was born alive.

Thus you will perceive that the accident is not of frequent occurrence, that the prognosis for the mother is good, and that that for the child is decidedly bad. I refrain from giving you other statistical statements on this point, from the fact that authors generally confound the two first varieties of hemorrhage together.

*Causes.*—The pathological state causing the flow, is, as already mentioned, rupture of the vessels which pass from the uterus into the placenta. The causes which bring about such rupture are numerous, since any kind of violence sufficiently great for the separation of the placenta would accomplish it.

The chief are—Blows or falls.

Sudden uterine contraction from mental emotion.

Sudden shocks or successions given to the uterus, as from laughter, vomiting, &c.

Dragging off of the placenta by shortness of the cord, or its repeated winding around the child's neck.

Placental apoplexy occurring near the periphery of the organ.

There are other and less frequent and conspicuous causes, but it would be useless to name them, since, as I have said, any accident which severs the utero-placental attachment would produce it.

*Symptoms and Diagnosis.*—As the prognosis, and more especially the treatment of the two varieties of parturient hemorrhage differ from each other very much indeed, it is of great importance that the accoucheur should determine at once as to which one he has to deal with, and that his decision be as far as possible positive and final. This he will in many cases do without difficulty, but sometimes he will have to remain in suspense for a short period until the progress of the case enlightens him and determines the point.

Denman on this point justly remarks: "Before there is some dilatation of the os uteri, be the discharge ever so profuse, and it may even at this time be excessive, I do not know that it is always possible to tell with certainty whether the placenta is present or not. It may indeed be conjectured that the placenta is there attached by the cushion-like feel of the cervix and lower parts of the uterus." He then goes on to remark how, even after dilatation of the os, a clot of blood may be mistaken for the placenta.

The only reliable means for determining the nature of the flow are these:

*In Accidental Hemorrhage,*

- [a] There will have been no ante-partum loss.
- [b] Uterine efforts will diminish the flow.
- [c] An evident cause will generally be found for it.
- [d] The loss is not generally very profuse.
- [e] The placenta cannot be touched.
- [f] Os uteri will be natural to the touch.
- [g] Placental murmur loudest near fundus.

*In Unavoidable Hemorrhage,*

- [a] There will have been hemorrhage during the last month or months of pregnancy.
- [b] Uterine efforts will increase the flow.

- [c] No cause will be found for it.
- [d] The loss is often sudden and profuse.
- [e] The edge of the placenta may be touched.
- [f] Os uteri will be thicker than ordinary.
- [g] Placental murmur loudest in one or other iliac fossa.

As a little reflection will readily explain to you why these two varieties should be characterized by their respective symptoms, I will not do more than enunciate them. Let me insist, however, upon the importance of an early and positive diagnosis, if such is within the range of possibility. Of all the symptoms mentioned, the presence of the placenta near the os is the most valuable, and this one you must thoroughly test. Do not be satisfied with temporizing with digital examinations if they are not sufficient, but explaining the necessity to your patient, pass the entire hand into the vagina; if the os is dilatable pass the index finger well up into the cervical canal, and ascertain to your full satisfaction whether you have or have not a case of placenta prævia to deal with. As a matter of course, if the rational signs point strongly to the supposition that the case is one of accidental hemorrhage, and there is no immediate danger, you would not expose your patient to the annoyance and pain attendant upon this procedure; but far better would it be to err on that side, than by a culpable inactivity to remain ignorant of a point upon the knowledge of which so much will depend.

*Treatment*—A parturient uterine hemorrhage should be treated upon precisely the same principles which should guide us in the management of such an accident taking place from any other part of the body. This you may, at first thought, regard as a sweeping assertion; but as we proceed you will perceive that, although from the nature of the locality from which the flow occurs, the means employed for *developing* the principles may differ, the *principles* themselves are identical.

Let us suppose, for example, that a hemorrhage should occur from any part of the surface of the body, as the result of a wound or abrasion, and let us follow out the principles which one after another would be employed by the surgeon, until he finally succeeds in checking it.

1st. If the flow were slight the patient would be kept perfectly quiet, and an effort made to constrict the mouths of the bleeding vessels by cold and styptic applications, as ice, alum, tannin, matico, etc.

2nd. Should these very useful and commonly employed hæmostatic agents fail in making this principle effective, an attempt might be made to cause in the wound the formation of

a coagulum, which, extending up into the mouths of the bleeding vessels, might seal them up as is done by plugging the anterior nares alone, or with the posterior, in epistaxis.

3rd. Should this fail, a very excellent principle, that of closing the open arterioles by firmly compressing their walls, might be developed by direct pressure, as is done, for instance, in hemorrhage from the palmar arch, by placing a billiard ball in the palm of the hand, and binding it firmly in its place by a bandage.

4th. Should even this fail, still another and surer one exists in the application of a ligature to the bleeding vessels; and to it the surgeon would now with confidence resort.

Thus, one after another he has brought to his assistance four principles, each valuable in itself, each differing from the one tried before it, and all capped by one which is as certain in its results as human means can ever be.

Thus, too, gentlemen, in parturient hemorrhage the obstetrician should act; and he will find that, if the first three of these four principles fail him, he, like the surgeon, will have one left which will prove as certain as the ligature.

In establishing these principles always be mindful of the pathological state which causes the dangerous symptoms which they are to control; i. e. that a portion of the placenta has been torn off from its uterine attachment, and that from its disrupted face, as well as from the corresponding surface of the uterus from which it was torn, the blood is welling forth.

In a case of accidental parturient hemorrhage, the first indication to be fulfilled is to check the flow by constricting the mouths of these vessels; and this will best be accomplished by confining the patient to bed in the supine posture, and absolutely prohibiting all muscular effort or mental exercise, even that attendant upon speaking; by keeping the apartment cool; by administering cold, acidulated drinks, as lemonade, or water acidulated with the elixir of vitriol; by applying towels soaked with cold water, or vinegar and water, to the vulva and over the uterus, and by prescribing astringents, as tannic or gallic acid in full dose, which being carried to the bleeding vessels by the circulation, may aid in producing the same result which their local application effects in vascular rupture elsewhere.

If by these means we succeed, we will have good cause for congratulation, for we will have relieved the woman without having in any way sacrificed the chances of her child. If they do not succeed, then we must resort to some other plan which may prove more effectual, and we enter into the consideration of the adoption of the second principle. The only available

means at our command for causing a clot to form in utero, under these circumstances, is the tampon or vaginal plug, an agent advised by many, and one which might accomplish the result as perfectly as do the double tampons employed in epistaxis. But there are dangers attending its use so great, that I must not only guard you against them, but advise an avoidance of this means in parturient hemorrhage, except in rare and particular cases. I would say in advance, *avoid the tampon as a rule, after the seventh month of pregnancy, but employ it boldly, even at full term, in a few exceptional and peculiar cases.*

The tampon, gentlemen, may be styled one of the most useful and dangerous of our uterine hæmostatics, and it is really curious to see how different and even contradictory is the advice which is given concerning the propriety of its employment. Let me, by an excusable and called-for digression, endeavor to fix in your minds this morning a few maxims concerning it.

A plug introduced into the vagina, of sufficient size to fill the canal, acts in uterine hemorrhage in these two ways—preventing the escape of the fluid which is flowing out of the uterus; this collects, and gradually is “backed” into the cavity above; soon it distends this cavity to its utmost extent; if the foetal mass is present, insinuates itself between the chorion and uterine wall, and at last forcibly dilating the os by distension of the whole organ, produces a powerful expulsive effort which frequently expells child, accumulated blood, and tampon together. When the uterus is not dilatable by the accumulating blood, this fluid coagulates within its cavity; the coagulum beginning to form at the os, extends upwards towards the source of the hemorrhage, and will often seal up the mouths of the bleeding vessels.

Both these results are often very desirable, and to accomplish them no means compares with the tampon. But after the seventh month of pregnancy the uterus is so large that it may contain a sufficient amount of blood to produce death, so that from this period to the completion of labor it is always attended by danger. (I need not insist upon the gross impropriety of the employment of such a means after delivery.)

Thus then, although the tampon might effect much for us in parturient hemorrhage, as a rule it should not be employed; and, in exceptional cases which demand it, should be resorted to only after mature consideration, and its effects be watched with very careful scrutiny. Observe these rules in using it.

Never employ the tampon *from choice* when there is a possibility of a dangerous internal hemorrhage.

At full term do not employ it after the waters have been discharged, for then the uterus will accommodate a large amount of blood.

Never employ it at full term after your patient has lost a great deal of blood, or from natural feebleness of body would be endangered by even a slight hemorrhage.

In a strong woman who has not already lost a good deal of blood, in whom the uterus is contracting well, and whose bag of waters has not been ruptured, I would not hesitate to employ it if other means failed, or from any reason I deemed them inapplicable.

Should the principle which is developed by the tampon be beyond our reach on account of the danger of the means which accomplished it, or, should it have been unsuccessfully resorted to, how are we to avail ourselves of the third?

You remember that the flow of blood in accidental parturient hemorrhage is checked by uterine contraction, and that this is so marked as to constitute one of its characteristic symptoms; now let us examine this fact. When the organ contracts, the bleeding surfaces of the placenta and uterus are pressed firmly against the foetal mass, and thus their open vessels are shut. If we could cause this pressure to be continuous and powerful, at the same time that it was resisted by a hard mass, we would cause the flow to cease entirely, and would be acting exactly as the surgeon does who binds the billiard ball in the palm of the hand. But you may ask how are we to introduce a hard resisting body into the uterus to act as counterpart of the ivory ball? We are supplied with such a substance in the body of the child. Surrounded by the soft and pliable bag of waters, one chief object of which is to prevent its hardness from being perceived by the sensitive uterus, it lacks the feature of resistance which we now desire; but evacuate the surrounding waters by puncturing the bag, and instantly the unyielding body presses against the hemorrhagic spot, and the principle is developed.

This, however, although often sufficient, is not always so, the pressure not being powerful enough. Under such circumstances, in the case of a palmar hemorrhage, the surgeon would remove his loose bandage, and apply another which would make all the pressure desirable. And so the obstetrician, by the administration of small doses of ergot, can so force his point of resistance against the bleeding surface as to compress entirely the ruptured vessels and render them impermeable. By these means you not only bring to your aid the principle mentioned, but, to a certain extent, you will establish that

which will be mentioned fourth, for the vessels are diminished by the same contractions which press the child against the bleeding surface. According to my experience it is rare for them to fail. In fact, I have never known them to do so in true accidental hemorrhage. Should they do so, however, but one resort remains, and that is ligation of the vessels from which the obstinate current flows. Have we any means by which ligatures may be thus applied in utero? Again hountiful nature comes to our aid, and we have but to use the means which she presents us and our end is accomplished. After every natural labor, were there not some arrangements for checking the flow from the broken utero-placental vessels, a hemorrhage would occur, but so soon as the uterus is emptied the fibres contract, diminish its size very greatly, and being arranged around the mouths of the vessels as the meshes of a netted purse are around the finger which is pushed through them, they inevitably close the mouths, and prevent all sanguineous loss.

After having tried in vain, by the development of the three principles mentioned, to accomplish what we wish, naught remains but to empty the uterus, force it into contraction, and cause nature to do what the surgeon does in external hemorrhage. If the head can be seized by the forceps, employ them; should it be out of their reach, accept of version as the alternative, and deliver promptly. Thus by successive steps the scientific obstetrician advances from mild, harmless, but correspondingly inefficient means, to more dangerous, and proportionately more effectual ones, until he arrives at a point at which he can safely say, "I will by this surely succeed in staying the flow, and will rescue my patient from its dangers."

But do not despise the more inefficient means because a more effectual one exists. Would you not blame the surgeon, who, for a slight hemorrhage, should tie the supplying arteries without seeing what might be done by styptics, pressure, etc.?

Keep the most efficient agent in reserve, *because it is accompanied by danger for mother and child*, and always strive to accomplish your ends by the mildest, least dangerous, and apparently most trifling means. Should you succeed, a host of unthought-of evils lurking like harpies in the shade, may by your moderation be avoided; should you not, then promptly apply the most efficient and most dangerous of your resources, which, like a "corps de reserve" you have kept until the fitting moment.

What has been denominated, gentlemen, "heroic practice," often marks the course of the ignorant and unreflecting obstet-

rician ; and although the vulgar may be blinded by its show of energy, decision, and promptness, and led to believe it an evidence of knowledge, it will often bring about consequences alike disastrous and avoidable.

The skilful general does not fire a twelve-pounder at a handful of marauders who could be dispersed by a musket-shot, nor does he trust to his muskets when an army is upon him in its might.

Never lose sight, too, of this fact in treating a complication of labor, that the interests of two beings are intrusted to your care, and that while you are to do all in your power for those of the mother, those of the child are scarcely less imperative. If, then, in the treatment of this accident, you can adopt means which will accomplish both ends, give them by all means the preference over those which, even if more surely effectual, in removing the woman from danger, will sacrifice the chances of the child.

The older one grows in obstetric experience, the more convinced does he become that many a woman has died from the unnecessary introduction of the hand into the uterus ; that many a uterus has been ruptured by uncalled for violence ; and that Herod destroyed not a tithe of the children which have been killed in utero by the reckless use of ergot.

The following is a resume of the treatment which has been recommended in this lecture, the principle upon which each procedure acts being italicised.

1st. *Constrict the bleeding vessels* by cold to the uterus and vulva, acidulated drinks, astringents, and perfect rest in the recumbent posture.

2d. In cases of failure *cause a clot to form in the mouth of the bleeding vessels* by the tampon, should the case be one in which this practice would be safe.

3d. Should this fail, *make direct pressure against the bleeding vessels* by evacuation of the waters, and increase it if necessary by the use of ergot.

4th. None of these means succeeding, *ligate the vessels* by evacuating the uterus, and causing firm contraction.

As I have alluded to certain cases in which the tampon might, in a woman for whom we did not fear a slight loss of blood, be preferable to an immediate resort to rupture of the membranes, it may be well for me to give you an example. There are several cases where it might be preferable, but this will serve as a type : in a transverse presentation before the os is dilatable, rupture of the bag and administration of ergot

would much complicate the operation of version, and thus endanger both mother and child. Should accidental hemorrhage occur in such a case, then it would be advisable to gain time for dilatation of the os by the use of a means which offers the probability of checking the flow without wasting the precious fluid which is to facilitate a dangerous operation.

Because this means is attended by danger I would not entirely discard it; but let that be a sufficient reason for its not being employed, except when absolutely necessary, and for its effects being watched with the utmost caution.—*American Medical Times.*

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## EDITORIAL.

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*Legislation on Medical Subjects.*—We would call the special attention of our readers to the Report of the Medical Society of Galesburg, contained in the present number of this journal. The subjects there brought up for consideration are very important, both to the profession and the people of the State. If the statutes of this State actually require a physician, when called into court, as a witness, to divulge anything that may have been told him by a patient, and which was strictly necessary for the proper treatment of such patient, they are contrary to the plainest dictates of justice, and ought certainly to be altered. The advantages to be derived from the enactment and enforcement, of a plain and practical law for registering births, marriages, and deaths, throughout the State, are too obvious to the medical reader to require elucidation. The statistics thus derived afford us the only reliable data, for determining the influence of locality, climate, etc., on the prevalence of particular diseases, their fatality, and the comparative longevity of the people. And, yet, these are all topics intimately connected with the welfare and happiness of the whole community. That it is the duty of the Legislature, to make some provision by which the study of human Anatomy can be prosecuted without the violation of law, is equally apparent to every reflecting mind. This topic the reader will find more fully discussed in the Annual Address to the State Medical

Society, published in the *Examiner* for June, 1860. We would urge all the local Medical Societies throughout the State, to actively co-operate in bringing these topics before the next Legislature. And we would suggest that each practitioner use his influence, personally, with the candidates for the next Legislature *before* the election day in November.

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*Medical Department of Lind University.*—The Second Annual Course of Lectures in this institution, commences on Monday, the 8th inst. The general Introductory Lecture will be given by Prof. Byford, in the College Hall, No. 22, Market street, at 7½ o'clock in the evening. The Trustees of the University, the Professors in other departments, the members of the Medical Profession, and the public generally, (including the ladies,) are invited to attend. After the Lecture the Museum and Library of the College will be open for the examination of the public.

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*Chicago City Dispensary.*—This charitable institution was first opened some three years since, on west Randolph street, by Drs. Wardner, Andrews, and Hollister. About the 1st of September, 1859, it was removed to No. 22 Market street, and placed under the immediate charge of Professors Andrews and Davis, in connection with the University Medical College. During the year just passed, ending Sept. 1st, 1860, over 2000 poor patients have received advice and medicine gratuitously, and several lying-in women, too poor to pay for medical services, have been furnished with reliable medical attendance at their homes. During the months of July and August, while diarrhœas were prevalent among children, the daily attendance of patients was between 20 and 30, two-thirds of whom were infants and young children. It will thus be seen that this charity is one of the most extensive and important in the city. Neither are its benefits restricted to the poor patients alone; for throughout the whole year, one Medical and one Surgical Clinic, has been given each week, to such Medical Students as were pursuing their studies in the city. And there is no place in the

country that affords a better opportunity for instruction in diseases of children, than in this Dispensary during the summer months. Hereafter Dr. Byford, Professor of Obstetrics and Diseases of Women and Children, will take the place of Prof. Davis in the Dispensary, and give Clinical instruction especially on diseases of Women and Children every Saturday afternoon; Prof. Andrews still retaining the Surgical department as heretofore. Medical attendance will also be supplied to lying-in women, at their homes, (if too poor to pay for medical services,) by applying at the Dispensary at the usual hours, between 2 and 3 o'clock in the afternoon of each day except Sundays.

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#### MERCY HOSPITAL REPORT.

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During the year ending August 1st, 1860, there were admitted into the Hospital of the Sisters of Mercy, 282 patients; of whom 204 were admitted into the Medical Wards, and 78 into the Surgical. Of those received into the Medical Wards, the principal diseases and results were as follows:

	Cases.	Recovered.	Improved.	Died.
Typhoid Fever,.....	16	15	0	1
Typhus Fever,.....	2	2	0	0
Intermittent Fever, .....	10	10	0	0
Remittent Fever, .....	11	11	0	0
Dysentery,.....	11	11	0	0
Diarrhœa, chronic ulcera'n, 10	5	5	3	2
Pneumonia,.....	8	7	0	1
Bronchitis, chronic, .....	4	2	2	0
Rheumatism,.....	10	9	1	0
Delirium Tremens,.....	12	9	2	1
Pulmonary Consumption,..	8	1	5	2
Scarlet Fever,.....	2	2	0	0
Scirrhus with Ascites, ...	1	0	1	0
Fatty Liver with dropsy,..	2	0	0	2

The remaining 97 cases embraced a large variety of diseases, both acute and chronic, among which the different varieties of

ophthalmia and cutaneous eruptions were the most numerous. It will be seen that the ratio of deaths to the whole number of cases treated, is 1 in 22 $\frac{3}{4}$ . The Hospital is under the charge of Prof E. Andrews, in the Surgical department, and Prof. N. S. Davis, in the Medical. During the Lecture season of the Medical Colleges of this city, Clinical instruction is given in the wards of the Hospital from 8 to 9 o'clock every week-day morning, and three mornings per week all the rest of the year; thus constituting it a continuous school of practical instruction. The price of Tickets for admission to the Clinical instruction is \$6.00, and the Ticket is good for the whole year. Patients are received and treated, both in the Medical and Surgical wards, from any part of the country, on the payment of from \$3 to \$5 per week for their board, according to the ward they occupy.

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#### PUFFING.

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"The *Reporter* has become the leading Medical Periodical of America. It has attained this position by representing the whole Profession, independent of any school, party, or publishing interest, and will maintain it."

The above, is one of the paragraphs kept at the head of the editorial columns of the *Medical and Surgical Reporter*: a weekly journal, published in the same city with the old *Quarterly Journal of Medical Sciences*, and the more recent *North-American Medico-Chirurgical Review*. We would respectfully ask the highly esteemed editors of the *Reporter* the following questions:

1st, What is the difference in principle, between claiming to publish "the leading Medical periodical of America," and claiming to be the leading practitioner of Medicine of America?"

2nd, In what respect does the *Reporter* represent the "whole Profession?"

3rd, How is it any more "independent," than a dozen other Medical journals in this country?

4th, Would it not be more modest as well as more appropriate, to wait for our contemporaries and posterity to assign us and our works their proper position, than to be continually puffing ourselves?

**NEW YORK MEDICAL COLLEGE AND CHARITY  
HOSPITAL.**

Under this title the New York Medical College, has been re-organized. One-third of the college building has been set apart for a Hospital, and the number of Professorships has been increased to ten. The following constitute the present Faculty :

R. Ogden Doremus, M.D., Professor of Chemistry.

J. M. Carnochan, M.D., Professor of Clinical and Operative Surgery.

D. Meredith Reese, M.D., L.L.D., Professor of Theory and Practice of Medicine, and Medical Jurisprudence.

B. J. Raphael, M.D., Professor of Principle and Practice of Surgery, and of Surgical Pathology.

A. K. Gardner, M.D., Professor of Clinical Midwifery and Diseases of Females.

John O. Bronson, M.D., Professor of Anatomy.

Chas. A. Budd, M.D., Professor of Theory and Practice of Midwifery.

A. Jacobi, M.D., Professor of Infantile Pathology and Therapeutics.

Bern. L. Budd, M.D., Professor of Toxicology.

R. K. Brown, M.D., Professor of Physiology.

M. Bailey, M.D., Adjunct Professor of Anatomy.

Fowler Prentice, M.D., Demonstrator of Anatomy.

The regular Lecture term continues five months, viz. : from the 17th of October to the 17th of March. It does not appear, that with this large number of Professors, they either divide the annual term of instruction into two departments, or materially increase the gross amount of instruction given during the term.

In the faculty we recognise, however, the names of several men noted for their ability and zeal, in advocating a higher standard of Medical education ; and we must look with confidence for them to practise what they *preach*.

MEDICAL DEPARTMENT OF UNIVERSITY OF MICHIGAN.

Samuel Denton, M.D., Professor of Theory and Practice of Medicine, in this School, died at Ann Arbor, Michigan, Aug. 17th, 1860. Dr. Denton had been connected with the Med. Department of the University from its first organization; and was a man highly esteemed both by the Profession and the community in which he lived.

At a meeting of the Board of Regents held at Detroit, Sept. 14th, the following Resolutions were adopted:—

"Resolved, That Prof. A. B. Palmer be appointed Professor of the Theory and Practice of Medicine, of Pathology, and of Materia Medica, with a salary of one thousand dollars.

"Resolved, That Prof. Moses Gunn be appointed Professor of Surgery and Therapeutics, with the same salary.

"Resolved, That Prof. Abram Sager be appointed Professor of Obstetrics and Diseases of Women and Children, with the same salary.

"Resolved, That Prof. Corydon L. Ford be appointed Professor of Anatomy and Physiology, with the same salary."

This reduces the number of Professors, in that school, to five; and we believe it is the design to increase the length of the term to nine months, thereby making it in all respects much like the Med. Dept. of the University of Virginia, at Charlottesville, in that State.

EPILEPSY.

Dr. W. M. Connell, in the Charleston *Medical Journal* for July, recommends the following formula in the treatment of Epilepsy:—

R.	Spiritus vini. gallici,	Oj.
	Tinct. Stramonii Dat.,	℥ iv.
	Sulph. Zinci,	℥ ii.
	Solv. zinc. in aquam distil.	℥ i.

Mix. Give 10 drops at a dose, and increase gradually until the specific effects of the stramonium are induced slightly, and continue it at that point.

**PHYSIOLOGY AND PATHOLOGY OF THE SPLEEN.**

Dr. David Hutchison, of Mooresville, Ind., concludes an essay on this subject, published in the *Cleveland Medical Gazette*, for September, with the following propositions:—

“1st. The spleen serves as a diverticulum or reservoir, for the blood, and thus regulates the quantity of the blood in the circulation.

“2nd. The spleen performs a very important office in the process of sanguification, either as a blood-disintegrating or as a blood-forming organ.

“3rd. Malaria acts on the blood, breaking down the blood-corpuscles, from which results disease of the spleen, and a peculiar anemic condition of the whole system.

“4th. The cure of this splenic affection depends on the administration of Quinine and Iron—especially the latter.”

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*Medical College of Ohio.*—This institution has been re-organised by the appointment of a Faculty, containing only two of those who constituted the previous Faculty. The new appointments appear to be far from satisfactory to the Profession in Cincinnati.

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**YEAR BOOK OF AMERICAN CONTRIBUTIONS TO MEDICAL SCIENCE AND LITERATURE.**

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It is designed that part *first* of each volume, shall comprise an arranged and classified *summary* of, and index to, all the important and original papers found in the various *Medical Journals* of this country, for the year immediately preceding. Part *second* will comprise a *summary* of, and index to, all papers found in the published transactions of the National and the various State and County Medical Societies. Part *third* will embrace reviews of Medical books of American authorship, published during the year, with a *summary* of all the novelties in opinion or practice therein.

To the above plan and arrangement, such other additions shall be made as time and circumstances may suggest. The first volume will be issued early in the spring of 1861.

In the preparation of our *Summary of American Medical Journalism*, for the *American Medical Monthly*, we have solicited a copy of all Medical Journals published in this country; the *American Journal of Medical Sciences*, the *N. O. Medical and Surgical Journal*, and the *Ohio Medical and Surgical Journal* are the only ones that have failed to comply with the request. To facilitate our design, we request an *exchange* with all American Medical Journals, to be sent to our address as issued. All Medical Societies who publish their transactions, will, we trust, be kind enough to send their transactions to us. Publishers of Medical Books, particularly of American authorship, are earnestly requested to send, as soon as issued, *all books* of the character as above.

The importance of a work of the character as above, for the information of the profession, and for the honor and dignity of American Medicine, will readily be conceded by all. We cannot prepare the work and publish at a pecuniary loss, and, hence, the object of this circular is to request that all physicians who would encourage the work and become subscribers to the same, would send us their names *at once*—payment to be made only on publication of the work. The work shall contain from 500 to 1,000 pages, be substantially bound, and furnished at the low price of *three dollars*. That we may know whether the work is to receive sufficient encouragement to justify its completion and publication, we request that subscribers' names may be sent in immediately. As a special favor and encouragement of this truly national enterprise, we would request that all Medical Journals of this country would copy our circular.

To Editors and Publishers we would say that it is designed that our *YEAR BOOK* shall commence its gleanings with the year 1860. Journal editors and book publishers will remember this, in sending their respective publications to our address.

All Books, Journals, published Transactions, and names of Subscribers, should be directed to

O. C. GIBBS, M.D.,  
Freensburg, Chautauque Co., N. Y.

*London Lancet.*—The October number is promptly on hand, filled with its usual amount of interesting and valuable matter.

*The Cause of Death.*—Out of 100 deaths in England and Wales in 1858, the last year for which the cause of death have been examined, 25 were from zymotic diseases, 19 from constitutional diseases, 37 from local diseases, 16 from developmental diseases, and 3 from accidental or other violence. Zymotic diseases were exceedingly fatal, especially scarlatina, which, with its auxiliary diphtheria, caused 30,317 deaths. Small-pox and measles destroyed—the one 6,460 lives, the other 9,271. Syphilitic diseases killed 1006 persons, above 700 of them infants, who receive it as their only inheritance. Want was recorded as the cause of death in 62 instances; but, observes Dr. Farr, in how many more was it the real, though unavowed, source, or support of fatal disease, it was impossible that register-books could reveal. Almost 1000 children died from want of breast-milk; "alcoholism" destroyed 712 persons, the deaths of 288 being expressly referred to intemperance, and 424 more vaguely to delirium tremens. In the second class,—the constitutional,—which includes tubercular diseases, it is found that the rate of mortality from phthisis in London and in the Welsh division was nearly the same; though the two districts differ widely in important circumstances; but other pulmonary diseases—bronchitis, pneumonia, asthma, &c., were more than three times as fatal in London as in Wales. In the third class—local diseases—there was a clear increase in affections of the brain, the heart, the lungs, and the kidneys, a very remarkable decrease in phlegmon. In the fourth class—developmental diseases—there was an increase in the deaths from old age, caused by the cold of winter. 3,131 mothers died from child bearing—a considerable increase of mortality, supposed to be caused partly by the general unhealthiness of the year, and partly by privations occasioned by the distress resulting from the commercial crisis at the close of 1857. There were six diseases, each of which killed above 25,000 persons in the year—phthisis, 50,442; scarlatina, 30,317; bronchitis, 29,093; atrophy and debility, 26,360; pneumonia,

26,486; convulsions, 25,488 (children). Diseases are ranged in the Registrar-General's reports in 112 classes, or we might say groups, so many are the foes ever on the watch for us. Of the deaths in 1858, half were of persons under seventeen years of age; four out of ten were under five years of age. On the registers for the first quarter of the year being examined, it was found that 7,275 persons died without any medical attendant to certify the cause of their death—six in 100 of the deaths. In Manchester, 181 persons out of 1,755, the number who died in the quarter, had no medical attendance in their last illness; in Yorkshire, as many as 10 persons out of 100, and in the Welsh division at least 12 out of the same number. —*London Lancet.*

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*London and its Health.*—London, says the Registrar-General, now covers 121 square miles—a square mile of 11 miles to the side. It is equal to three Londons of 1800. It increases at the rate of 1000 a week, half by births (their excess over deaths,) and half by immigration (its excess over emigration.) It is remarkable that in London one of six of those who leave the world dies in one of the public institutions—a workhouse, hospital, asylum, or prison. Nearly one in eleven of the deaths is in a workhouse. For the improvement of the health of London three things are to be aimed at: pure air to breathe, pure water to drink, and a healthy soil to live on. The Registrar-General observes that there are above 2000 medical men in London and its vicinity; but they are chiefly employed in treating disease—the art of preventing it is not cultivated; it is not taught in any of our medical schools; it is not formally the subject of examination in our universities. The father of a family does not go to a doctor and say, “How can I preserve my health, make my children well and vigorous, and develope all their faculties to the fullest extent?” Imagine the 2000 members of the most enlightened profession in the country employed in instructing the people in the way of a healthy life. How many thousands of lives would be saved every year in London! How much better and happier the popula-

tion would be! A beginning of a movement has been made in the right direction, under Sir E. Hall's Act. Medical health officers are appointed in the various districts of London, and many of them are working courageously against ignorant opposition, with success. They deserve public approbation, for they have done quietly a great deal of good work, and it is probable, have saved many lives and also prevented much sickness.—*The London Times*

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*Specialities of the Present Day no Novelty.*—The system of special practice, which is becoming so prevalent at the present time, existed amongst the ancient Egyptians, for Herodotus speaks of their having doctors for almost every part of the body, of which the eye and other organs are particularly mentioned. Our specialism would seem, then, to be merely a revival of an ancient though not enlightened practice.—*London Lancet.*

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*Death from Chloroform.*—Our readers will find an account of a death from chloroform in this number of our journal. This is the second one that has occurred in this city. The first took place on February 23, 1858. We believe this was one of the first deaths reported from inhaling chloroform. Dr. Krause, the gentleman in whose care the recent death took place, is one of the best educated physicians and surgeons in this city or the West. A graduate of one of the German Universities, he has been a respectable practitioner for several years; we can, therefore, say, that no blame is to be attached to him in the case. It is becoming a question, in view of the deaths occurring from chloroform, whether it would not be safer to use a mixture of chloroform and ether. We know the advantages of chloroform, yet we believe that the opinion of practical men who find occasion for its frequent use, will very shortly be established against using it alone.—*Cin. Lan. and Ob.*

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Lindsay & Blakiston will very soon issue a large work entitled, *American Medical Biography*, by Prof. S. D. Gross. It will consist of memoirs of the most distinguished physicians and surgeons of our country.

*The Memorial to John Hunter.*—It will be recollected by our readers that in closing the vaults of the old church in London, in 1859, Dr. Buckland discovered the remains of the great John Hunter. Great interest was manifested by the learned of all classes; and as a fitting honor to the memory of so great and good a man, his remains were interred in Westminster Abbey, that resting-place of so many of Britain's great men. A subscription was set on foot in England, by the profession, for the purpose of erecting a fitting monument to his memory.

The medical profession of the United States is supposed to entertain an equal veneration for the memory of Hunter with the British profession. At the last meeting of the American medical Association, the following resolution was passed:

*Resolved*, That it be recommended to the different States to collect subscriptions of not more than one dollar each from every regularly educated physician, to aid in the erection of a monument about to be placed in Westminster Abbey to the memory of John Hunter; all moneys collected to be forwarded to the chairman of the committee hereby appointed.—*Cincinnati Lancet and Observer*.

*Remedy for Obesity.*—The use of the leaves and stems of *Tucus vesiculosus*, or common sea-weeds, in decoction, powders, or pills, as a cure of excessive obesity, is strongly advocated by Dr. Duchesne Duparc, in *Champonniere's Jour. of Med. and Surg.*

Dr. Meredith Reese will soon put to press "a new and enlarged edition" of his medical lexicon. We are very glad of this, for his dictionary has always been a useful and convenient book to us. We feel sure it will meet with a large sale.—*Cin. Lancet and Observer*.

In New Orleans, according to the "N. O. Medical News and Hospital Gazette," there were during the week ending July 15, between seventy-five to eighty cases of sun-stroke. The same journal states that there has not been a single case of yellow fever in that city during the summer, nor one admitted to Charity Hospital.—*Ibid.*

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